# UNITED STATES DEPARTMENT OF THE INTERIOR

RAY LYMAN WILBUR, Secretary

GEOLOGICAL SURVEY

GEORGE OTIS SMITH, Director

Water-Supply Paper 630

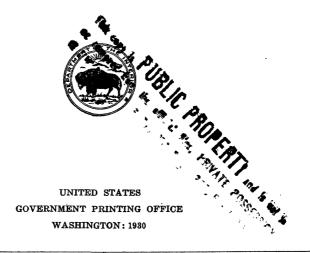
# SURFACE WATER SUPPLY of the UNITED STATES

1926

PART X THE GREAT BASIN

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Prepared in cooperation with the States of UTAH, NEVADA, CALIFORNIA, OREGON, IDAHO, and WYOMING





# CONTENTS

Authorization and scope of work
Definition of terms
Explanation of data
Accuracy of field data and computed results
Publications
Cooperation
Division of work
Gaging-station records
Great Salt Lake Basin
Gages on Great Salt Lake
Bear River Basin
Bear River near Evanston, Wyo
Bear River at Harer, Idaho
Bear River at Alexander, Idaho
Bear River near Weston, Idaho
Bear River near Collinston, Utah
Soda Creek at Lau ranch, near Soda Springs, Idaho
Soda Creek near Soda Springs, Idaho
Logan River above State dam near Logan, Utah
Utah Power & Light Co.'s tailrace near Logan, Utah
Logan, Hyde Park & Smithfield Canal near Logan, Utah.
Blacksmith Fork above Utah Power & Light Co.'s dan
near Hyrum, Utah
West Side Canal near Collinston, Utah
Hammond (East Side) Canal near Collinston, Utah
Weber River Basin
Weber River near Oakley, Utah
Weber River at Devils Slide, Utah
Weber River at Gateway, Utah
Weber River near Plain City, Utah
Lost Creek at Devils Slide, Utah
South Fork of Ogden River near Huntsville, Utah
South Fork of Ogden River at Artesian Park, near Hunts
ville, Utah
Middle Fork of Ogden River near Huntsville, Utah
Jordan River Basin
Jordan River near Lehi, Utah
Salt Creek near Nephi, Utah
Provo River at Forks, Utah
South Fork of Provo River at Forks, Utah
Sevier Lake Basin
Sevier River at Hatch, Utah
Sevier River near Circleville, Utah
Sevier River near Kingston, Utah
Piute Reservoir near Marysvale, Utah
Sevier River below Piute Dam, near Marysvale, Utah
Sevier River at Sevier, Utah
Sevier River near Vermilion, Utah

348-8 244-42 1010-42	Page
Sevier Lake Basin—Continued.	
Sevier River below San Pitch River, near Gunnison, Utah	62
Sevier Bridge Reservoir near Juab, Utah	64
Sevier River near Juab, Utah	64
Sevier River at Oasis, Utah	66
East Fork of Sevier River near Kingston, Utah	67
Rockyford Canal near Vermilion, Utah	69
Beaver River Basin	71
Beaver River near Beaver, Utah	71
Beaver River at Adamsville, Utah	72
Beaver River at Rockyford Dam, near Minersville, Utah	74
Salton Sink Basin	75
Snow Creek near Whitewater, Calif	75
Southern Pacific Co.'s ditch near Whitewater, Calif	77
Falls Creek near Whitewater, Calif	78
Owens Lake Basin	80
Owens River at Pleasant Valley, near Bishop, Calif	80
Owens River near Big Pine, Calif	87
Rock Creek at Sherwin Hill, near Bishop, Calif	88
Pine Creek at division box near Bishop, Calif	92
<b>=</b> ,	. 97
Rock Creek near Valyermo, Calif	97
	98
Mono Lake Basin	98
Mono Lake near Mono Lake, Calif	99
Walker Lake Basin	
East Walker River near Bridgeport, Calif	99
,	100
, , , , , , , , , , , , , , , , , , ,	102
	103
	104
	106
	106
<del></del>	106
, , , , , , , , , , , , , , , , , , , ,	107
	109
,	110
·	111
	112
	112
,,,,	114
Humboldt River near Oreana, Nev	115
Humboldt River near Lovelock, Nev.	116
Marys River near Deeth, Nev	116
South Fork of Humboldt River near Elko, Nev	118
Little Humboldt River near Paradise Valley, Nev	119
Martin Creek near Paradise Valley, Nev	121
Cottonwood Creek near Paradise Valley, Nev	122
Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder	
canal near Mill City, Nev	124
Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet	
	125

# CONTENTS

Gaging-station records—Continued.	Page
Pyramid and Winnemucca Lakes Basin	126
Lake Tahoe at Tahoe, Calif	126
Truckee River at Tahoe, Calif	127
Truckee River at Iceland, Calif	128
Abert Lake Basin	130
Chewaucan River above Conn ditch near Paisley, Oreg	130
Silver Lake Basin	131
Silver Creek near Silver Lake, Oreg	131
West Fork of Silver Creek near Silver Lake, Oreg	134
Silver Lake Irrigation District Canal near Silver Lake, Oreg	135
Malheur and Harney Lakes Basin	137
Silvies River near Burns, Oreg	137
Alvord Lake Basin	138
Trout Creek near Denio, Oreg	138
Miscellaneous discharge measurements	140
Index	143
The state of the s	
•	
ILLUSTRATION	
<u></u>	
	Page
France 1 Typical gaging station	2



# SURFACE WATER SUPPLY OF THE GREAT BASIN, 1926

# AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1926.

The data presented in these reports were collected by the United States Geological Survey under the following authority contained in the organic law (20 Stat. L., p. 394):

Provided, That this officer [the Director] shall have the direction of the Geological Survey and the classification of public lands and examination of the geological structure, mineral resources, and products of the national domain.

The work was begun in 1888 in connection with special studies relating to irrigation. Since the fiscal year ending June 30, 1895, successive appropriation bills passed by Congress have carried the following items:

For gaging the streams and determining the water supply of the United States and for the investigation of underground currents and artesian wells, and for the preparation of reports upon the best methods of utilizing the water resources.

Annual appropriations for the fiscal year ending June 30, 1895-1926

1895	\$12, 500. 00	1918	\$175, 000. 00
1896	24, 500. 00	1919	•
1897-1899	50, 000. 00	1920	175, 000. 00
1900	70, 000. 00	1921	180, 000, 00
1901-1902	100, 000. 00	1922	180, 000. 00
1903-1906	200, 000. 00	1923	180, 000. 00
1907	150, 000. 00	1924–1925	170, 000. 00
1908-1910	100, 000. 00	1926	165, 000. 00
1911–1917	150, 000. 00	1927	151, 000. 00

In the execution of the work many private and State organizations have cooperated either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.

Measurements of stream flow have been made at about 5,250 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1926, 1,730 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements are made at other points. In connection with this work data were also collected in

regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

# DEFINITION OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, miner's inches, and discharge in second-feet per square mile; and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, and acre-feet. They may be defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An "acre-foot," equivalent to 43,560 cubic feet, is the quantity required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

The following terms not in common use are here defined.

"Stage-discharge relation," an abbreviation for the term "relation of gage height to discharge."

"Control," a term used to designate the section or sections of the stream below the gage which determines the stage-discharge relation at the gage. It should be noted that the control may not be the same section or sections at all stages.

The "point of zero flow" for a gaging station is that point on the gage—the gage height—at which water ceases to flow over the control.

# EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1925, and ending September 30, 1926. At the beginning of January in most parts of the United States much of the precipitation in

the preceding three months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as ground water, and this stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from

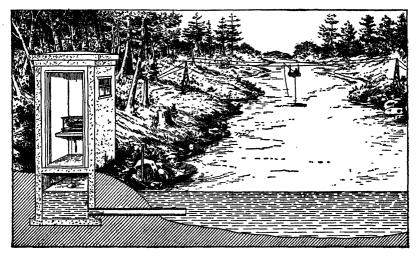


FIGURE 1.-Typical gaging station

direct readings on a staff or chain gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter. The general methods are outlined in standard textbooks on the measurement of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in Figure 1.

From the discharge measurements rating tables are prepared that give the discharge for any stage. The application of the daily gage heights to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report comprise a description of the station, a table giving results of discharge measurements, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off.

If the base data are insufficient to determine the daily discharge, tables giving daily gage heights and results of discharge measurements are published.

The description of the station gives, in addition to statements regarding location and equipment, information in regard to any condition that may affect the permanence of the stage-discharge relation, covering such subjects as the occurrence of ice, the use of the stream for log driving, shifting of control, and the cause and effect of backwater. It gives also information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the mean of the gage heights read each day. At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders, the mean daily discharge may be obtained by averaging discharge at regular intervals during the day or by using the discharge integrator, an instrument operating on the principle of the planimeter and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the mean flow for the day when the mean gage height was highest. As the gage height is the mean for the day it does not indicate correctly the stage when the water surface was at crest height, and the corresponding discharge was consequently larger than given in the maximum column. Likewise, in the column headed "Minimum" the quantity given is the mean flow for the day when the mean gage height was lowest. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

# ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanence of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

A paragraph in the description of the station gives information regarding the (1) permanence of the stage-discharge relation, (2) precision with which the discharge rating curve is defined, (3) refinement of gage readings, (4) frequency of gage readings, and (5) methods of applying daily gage heights to the rating table to obtain the daily discharge.

For the rating tables "well defined" indicates, in general, that the rating is probably accurate within 5 per cent; "fairly well defined," within 10 per cent; "poorly defined" within 15 to 25 per cent. These notes are very general and are based on the plotting of the individual measurements with reference to the main rating curve.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and run-off in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches. All figures representing "second-feet per square mile" and "run-off in inches" published by the Geological Survey in earlier reports should be used with caution because of possible inherent but unknown sources of error.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and the discharge recorded does not show the water supply available for further development, as prior appropriations below the stations must first be satisfied. To give an idea of the amount of prior appropriations, a paragraph on diversions is presented in each station description. The figures given can not be considered exact but represent the best information available.

The table of monthly discharge gives only a general idea of the flow at the station and should not be used for other than preliminary estimates; the tables of daily discharge allow more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published.

# **PUBLICATIONS**

Investigation of water resources by the United States Geological Survey has consisted in large part of measurements of the volume of flow of streams and studies of the conditions affecting that flow, but it has comprised also investigation of such closely allied subjects as irrigation, water storage, water powers, underground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the bulletins, professional papers, annual reports, and monographs.

The results of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with natural-drainage features as indicated below:

- Part I. North Atlantic slope basins (St. John River to York River).
  - II. South Atlantic slope and eastern Gulf of Mexico basins (James River to the Mississippi).
  - III. Ohio River Basin.

- IV. St. Lawrence River Basin.
- V. Upper Mississippi River and Hudson Bay basins.
- VI. Missouri River Basin.
- VII. Lower Mississippi River Basin.
- VIII. Western Gulf of Mexico basins.
  - IX. Colorado River Basin.
    - X. The Great Basin.
  - XI. Pacific slope basins in California.
- XII. North Pacific slope basins, in three parts:
  - A, Pacific slope basins in Washington and upper Columbia River Basin.
  - B, Snake River Basin.
  - C, Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the United States Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

- 1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will furnish lists giving prices.
- 2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.
- 3. Complete sets are available for consultation in the local offices of the water-resources branch of the Geological Survey, as follows:

Augusta, Me., Statehouse.

Boston, Mass., 2500 Customhouse.

Hartford, Conn., 64 State Capitol.

Albany, N. Y., 904 Home Savings Bank Building.

Trenton, N. J., 423 Statehouse Annex.

Charlottesville, Va., Brooks Museum, University of Virginia.

South Charleston, W. Va., Naval Ordnance Plant.

Asheville, N. C., 608 City Hall.

Chattanooga, Tenn., 630 Power Building.

Tuscaloosa, Ala., Post Office Building.

Columbus, Ohio, Engineering Experiment Station, Ohio State University.

Chicago, Ill., 1510 Consumers Building.

Madison, Wis., 337N State Capitol.

Thief River Falls, Minn., 618 Knight Avenue north.

↑ Topeka, Kans., 23 Federal Building.

Rolla, Mo., Rolla Building, School of Mines and Metallurgy.

Fort Smith, Ark., Post Office Building.

Austin, Tex., State Capitol.

Tucson, Ariz., 104 Agricultural Building, University of Arizona.

Denver, Colo., 403 Post Office Building.

Salt Lake City, Utah, 313 Federal Building.

Idaho Falls, Idaho, 228 Federal Building.

Boise, Idaho, Federal Building.

Helena, Mont., 45-46 Federal Building.

Tacoma, Wash., 406 Federal Building.

Portland, Oreg., 606 Post Office Building.

San Francisco, Calif., 303 Customhouse.

Los Angeles, Calif., 600 Federal Building.

Honolulu, Hawaii, Territorial Office Building.

A list of the Geological Survey's publications may be obtained by applying to the Director of the United States Geological Survey, Washington, D. C.

Stream-flow records have been obtained at about 5,250 points in the United States, and the data obtained have been published in the reports tabulated below:

Stream-flow data in reports of the United States Geological Survey

[A=Annual Report; B=Bulletin; W=Water-Supply Paper]

Report	Character of data	Year
10th A, pt. 2		
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept., 1890.
12th A, pt. 2	do	1884 to June 30, 1891.
13th A, pt. 3	Mean discharge in second-feet	1884 to Dec. 31, 1892
14th A, pt. 2	Monthly discharge (long-time records, 1871 to 1893)	1888 to Dec. 31, 1893 1893 and 1894.
B 131	Descriptions, measurements, gage heights, and ratings	1999 8110 1894.
B 140	Descriptive information only Descriptions, measurements, gage heights, ratings, and month-	1895.
D 140	ly discharge (also many data covering earlier years).	1090.
W 11	Gage heights (also gage heights for earlier years).	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge	1895 and 1896.
2002 12, pt. 111111	(also similar data for some earlier years).	2000 024 2000
W 15	Descriptions, measurements, and gage heights, eastern United	1897.
	States, eastern Mississippi River, and Missouri River above	
	junction with Kansas.	
W 16	Descriptions, measurements, and gage heights, western Missis-	1897.
	sippi River below junction of Missouri and Platte, and west-	
	ern United States.	
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge	1897.
TYI OF	(also some long-time records).	1000
W 27	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and	1898.
W 20	western United States.	1090.
20th A, pt. 4		1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Monthly discharge Descriptions, measurements, gage heights, and ratings	1900.
22d A. nt. 4	I MODINIV disensipe	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings Monthly discharge	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
	do	
W 201 to 2/2	do	1909.
W 201 to 212	do	1910. 1911.
W 301 to 312	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919-20,
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 001 to 014	do	1925.
W 021 to 034	ODOD	1926.

The records at most of the stations discussed in these reports extend over a series of years, and miscellaneous measurements at many points other than regular gaging stations have been made each year. An index of the reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

The table following gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1926. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained. For example, data for Machias River at Whitneyville, Me., 1903 to 1921, are published in Water-Supply Papers 97, 124, 165, 201, 241, 261, 281, 301, 321, 351, 381, 401, 431, 451, 471, 501, and 521, which contain records for the New England streams from 1903 to 1921. Results of miscellaneous measurements are published by drainage basins.

Numbers of water-supply papers containing results of stream measurements, 1899–1926 [For basins included see p. 5]

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Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 89. Tables of mouthly discharge for 1899 in Twenty-first Annual Report, Part II's 5 James River only.

Green and Gunnison Rivers and Grand River above junction with Gunnison. · Gallatin River.

Mohave River only.

Kings and Kerns Rivers and South Pacific slope basins.

Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Tables of monthly discharge for 1900 in Twenty-second Annual Report, Part IV.

' Scioto River

i Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte. \* Tributaries of Mississippi from east. ! Lake Ontario and tributaries to St. Lawrence River proper.

" Hudson Bay only.
"New England rivers only.
"Hadson River to Delaware River, inclusive.
"Susquehanna River to Yadkin River, inclusive.
"Platte and Kansas Rivers.

r Great Basin in California except Truckee and Carson River Basins.

Below junction with Gila. Rogue, Umpqua, and Siletz Rivers only.

#### COOPERATION

During the year ending September 30, 1926, the work in Utah, Nevada, California, Oregon, Idaho, and Wyoming has been done under cooperative agreements between the United States Geological Survey and the respective States.

Special acknowledgments are due to George M. Bacon, State engineer of Utah; Robert A. Allen, State engineer of Nevada; W. F. McClure and Paul Bailey, State engineers of California; the division of water rights, Department of Public Works of the State of California; Rhea Luper, State engineer of Oregon; W. G. Swendsen, commissioner of reclamation of Idaho; and Frank C. Emerson, State engineer of Wyoming, for the very efficient manner in which they have represented their States in the cooperative investigations.

Acknowledgments are also due to the officials and employees of the United States Bureau of Reclamation, United States Weather Bureau, Utah Power & Light Co., and Southern Pacific Co.

Financial assistance has been rendered by the United States Indian Service, Utah Power & Light Co., Walker River Irrigation District, Sevier River Water Users, and Empire Irrigation Distirct.

# DIVISION OF WORK

Data for stations in Utah and Nevada were collected and prepared for publication under the direction of A. B. Purton, district engineer, assisted by J. W. Mangan, M. T. Wilson, D. M. Corbett, and Miss Lysle Christensen.

Data for stations in California were collected and prepared for publication under the direction of H. D. McGlashan, district engineer, assisted by William Kessler, Charles Leidl, R. C. Briggs, Jesse Arnold, and J. E. Jones.

Data for the stations in Oregon were collected and computed in the office of the State engineer and were reviewed, checked, and prepared for publication by F. F. Henshaw, district engineer, assisted by G. H. Canfield.

Data for stations on Soda Creek in Idaho were collected and prepared for publication under the direction of C. G. Paulsen, district engineer, assisted by F. M. Veatch and Miss E. H. Haugse.

Data for the station in Wyoming were collected and prepared for publication under the direction of Robert Follansbee, assisted by P. V. Hodges and Miss N. L. Esterly.

The records were reviewed and the manuscript assembled by Otto Lauterhahn.

## GAGING-STATION RECORDS

## GREAT SALT LAKE BASIN

#### GAGES ON GREAT SALT LAKE

LOCATION.—At Saltair, on southeast shore of lake, 15 miles west of Salt Lake City, and at Midlake, on Lucin cut-off of Southern Pacific Railroad, 30 miles west of Ogden, Weber County, Utah.

RECORDS AVAILABLE.—September 14, 1875, to December 15, 1899; March to July, 1904; October 1, 1912, to September 30, 1926.

Gages.—Midlake gage read August 15, 1902, to September 30, 1926, by Southern Pacific Co. Saltair gage read July 1, 1903, to September 30, 1926, by United States Weather Bureau. Other gages used at various times are described in earlier water-supply papers. Datum of Midlake gage is 4,198.0 feet above mean sea level as determined by-comparative readings with other gages in 1916. Datum of Saltair gage is 4,196.8 feet above mean sea level as determined by levels by topographic branch in 1922.

EXTREMES OF STAGE.—Maximum stage recorded during year, 4,204.2 feet above mean sea level May 1 and 15 at Saltair gage; minimum, 4,202.4 feet September 15 at Midlake gage.

1850-1926: Maximum stage recorded, 4,211.3 feet above mean sea level July 12, 1877. Estimated maximum stage, 4,212.5 feet, occurred in 1868 (data furnished by Marcus E. Jones, Salt Lake City); minimum, 4,195.7 feet in 1902.

ACCURACY.—Saltair gage is read to tenths of feet. Midlake gage is read to quarter inches, and reductions have been made to feet and half-tenths. Apparent inconsistencies in readings are probably largely due to the effect of wind, as the two gages are about 40 miles apart.

Cooperation.—Readings on Midlake gage furnished by Southern Pacific Co.; readings on Saltair gage, by United States Weather Bureau.

Gage height, in feet, of Great Salt Lake, Utah, for the year ending September 30, 1926

Day	Saltair gage	Midlake gage	Day	Saltair gage	Midlake gage	Day	Saltair gage	Midlake gage
Oct. 1	6. 4 6. 4 6. 4 6. 5 6. 6 6. 6	5. 0 4. 9 4. 9 5. 1 5. 25 5. 25 5. 25	Feb. 1	6. 7 6. 9 7. 0 7. 2 7. 2 7. 3 7. 4	5. 35 5. 6 5. 65 5. 75 5. 75 5. 9 6. 0 6. 1	June 1 June 15 July 1 July 15 Aug. 1 Aug. 15 Sept. 1 Sept. 15	7. 3 7. 1 6. 9 6. 8 6. 5 6. 4 6. 0 5. 8	5. 9 5. 85 5. 6 5. 4 5. 15 5. 0 4. 65 4. 4

# BEAR RIVER BASIN

# BEAR RIVER NEAR EVANSTON, WYO.

Location.—In sec. 1, T. 15 N., R. 121 W., 300 feet above highway bridge and 3½ miles northwest of Evanston, Uinta County. Nearest tributary, a small stream entering from southwest half a mile above.

Drainage area.—645 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—October 26, 1913, to September 30, 1926.

Gage.—Chain gage on left bank 300 feet above bridge; read by Mrs. Alex. Morrow.

DISCHARGE MEASUREMENTS.—Made from cable just below gage or by wading.

95449-30-2

Channel and control.—Bed composed of coarse gravel. Control at riffle a short distance below gage; slightly shifting at long intervals. Banks subject to overflow at stage of about 5 feet.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.90 feet at 4.45 p. m. May 21 (discharge, 1,680 second-feet); minimum discharge, 6 second-feet September 14-18 and 22-30.

1914–1926: Maximum stage recorded, 6.35 feet at 6.30 p. m. June 14, 1921 (discharge, 3,690 second-feet); river dry August 9–24 and August 27 to September 30, 1924.

Ice.—Stage-discharge relation seriously affected by ice; observations discontinued.

DIVERSIONS.—Adjudicated diversions for irrigation of 30,300 acres from Bear River above station.

REGULATION.—Diurnal fluctuation during spring caused by alternate melting and freezing of mountain snow. No artificial regulation.

Accuracy.—Stage-discharge relation practically permanent except when affected by ice. Rating curve used October 1 to December 13 and curve March 16 to September 30 are both well defined. Gage read to quarter tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good except for periods affected by ice, for which they are fair.

The following discharge measurements were made:

May 17, 1926: Gage height, 3.42 feet; discharge, 772 second-feet.

September 26, 1926: Gage height, 0.78 foot; discharge, 5.6 second-feet.

Daily discharge, in second-feet, of Bear River near Evanston, Wyo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	92	77	84	90	110	735	1, 090	59	8	8
2	82	77	84	90	94	760	975	59	9	10
3	73	75	60	95	100	920	975	58	12	11
4	73	65	50	100	180	1,000	1,000	58	26	11
5	80	65	49	110	339	1, 300	975	59	42	11
6	128	69	84	100	402	1,330	1,030	64	43	9
7	172	67	88	90	449	1, 120	1,000	73	47	9
8	135	62	88	100	376	810	892	92	52	9 9 8 8
9	130	66	82	150	301	810	865	104	53	8
10	126	80	69	200	394	785	865	121	59	7
11	126	71	71	275	329	685	785	126	63	7
12	128	66	75	300	269	660	660	98	59	7
13	132	62	69	350	269	610	601	88	55	7
14	139	60		400	269	588	565	80	53	6
15	126	60		500	294	610	470	• 77	45	6
16	112	62		640	343	635	421	63	39	6
17	110	64		685	368	735	343	53	35	6
18	112	67		838	394	865	305	53	28	l 6
19	108	70		421	425	1, 030	262	45	25	l ž
20	104	7ŏ		357	482	1, 210	229	39	25	7
21	100	72		329	470	1,610	202	30	23	7
22	102	74		322	516	1,610	167	21	23	
23	104	77		288	529	1, 440	137	15	23	6
24	100	62		301	534	1, 440	106	16	20	l š
25	96	77		281	556	1, 240	88	12	17	ě
26	92	92		170	606	1, 030	77	11	12	6
27	80	90		137	650	975	63	9	9	8
28	90	98		112	760	920	63	11	8	6
29	92	102		119	785	920	52	ii	8	l š
30	86	98		110	785	1, 150	52	9	. 7	ĕ
31	84	90		110	100	1, 150	32	9	7	١ ،
***************************************	04			110		1, 100			•	

Note.—Stage-discharge relation affected by ice November 3-5, 13-22, December 3,4, Mar. 1-15, 30,31; discharge based on temperature and gage-height records and comparison with records of flow of Hams Fork at Diamondville and Green River at Green River.

Monthly discharge of Bear River near Evanston, Wyo., for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December 1-13 March April May June July August	172 102 88 838 785 1,610 1,090	73 60 49 90 94 588 52 9	107 73. 2 73. 3 264 413 990 510 52. 3 30. 2	6, 580 4, 360 1, 890 16, 200 24, 600 60, 900 30 300 3, 220 1, 860
September	11	6	7. 3	434

# BEAR RIVER AT HARER, IDAHO

LOCATION.—In NE. ¼ sec. 22, T. 14 S., R. 45 E., three-fourths mile north of Harer siding on Oregon Short Line Railroad, 7 miles above Dingle, and 14 miles southeast of Montpelier, Bear Lake County.

DRAINAGE AREA.—2,780 square miles (determined by Utah Power & Light Co.). RECORDS AVAILABLE.—June 21, 1913, to September 30, 1916; January 1, 1919, to September 30, 1926.

GAGE.—Au continuous water-stage recorder on right bank; inspected by Karl Gilgen. DISCHARGE MEASUREMENTS.—Made by wading or from cable.

CHANNEL AND CONTROL.—Bed clean and firm, hard material; left bank over-flowed at extremely high stages. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 5.90 feet at 8 a.m. March 20 (discharge, 1,380 second-feet); minimum, 2.82 feet September 16 (discharge, 114 second-feet).

1913–1916, 1919–1926: Maximum stage recorded, 10.51 feet June 2, 1920 (discharge, 3,860 second-feet); minimum, 2.61 feet at 6.25 a. m. September 1, 1919 (discharge, 81 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Numerous diversions for irrigation above station.

REGULATION.—None.

Accuracy.—Stage-discharge relation affected by ice November 13 to March 23. Rating curves well defined. Water-stage recorder operated satisfactorily. Daily discharge ascertained by applying mean daily gage height to rating table except during ice-affected period and March 27-31, when estimates were based on discharge measurements. Records good.

Cooperation.—Data collected and records compiled by Utah Power & Light Co. (under supervision of the Geological Survey) in connection with records furnished for Federal Power Commission project 20, Idaho.

Discharge measurements of Bear River at Harer, Idaho, during theye ar ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 2	3. 68 3. 65	Secft. 366 317 359 359 338 332 -292 338 307 315 164 208 165 188	Feb. 3	Feet b 3. 80 b 3. 87 b 3. 87 b 3. 87 b 3. 89 a 4. 44 a 5. 61 4. 79 4. 13 4. 24 4. 68 4. 67 4. 80 4. 67	Secft. 219 242 236 236 234 417 978 858 523 584 800 812 851 791	May 10 May 17 May 24 June 19 July 2 July 19 July 29 Aug. 16 Aug. 30 Sept. 4 Sept. 15 Sept. 25 Sept. 30	Feet 4. 90 4. 46 4. 32 3. 84 3. 31 3. 54 3. 22 3. 04 2. 90 2. 89 2. 83 2. 84 2. 99	Secft. 931 701 624 423 248 314 214 168 134 129 122 123 153

a Partial ice cover.

b Complete ice cover.

Daily discharge, in second-feet, of Bear River at Harer, Idaho, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	370 362 355 351 351	329 325 332 336 336	315 310 260 220 230	178 181 200 202 197	190 200 210 222 225	228 225 240 250 270	538 503 490 499 503	746 746 790 727 732	756 698 660 646 637	261 249 243 240 237	191 189 189 189 186	119 119 122 126 129
6	351 347 344 332 325	308 294 283 297 325	280 310	202 194 200 194 194	228 237 237 240 243	270 320 360 405 402	516 582 708 843 878	809 809 790 799 887	655 619 592 587 582	234 231 240 267 288	181 178 178 178 178	134 137 137 137 137
11 12 13 14 15	332 351 362 358 351	332 322 280 247 237		189 191 186 181 183	237 234 231 234 231	402 431 503 628 746	868 838 799 804 799	907 892 838 780 727	596 596 596 582 560	279 291 325 366 363	189 191 183 181 176	134 129 124 122 116
16	344 336 340 351 355	280 325 318 280 247	225	186 183 189 189 178	234 237 240 228 228	828 931 931 1, 140 1, 320	780 790 799 790 814	684 684 646 614 587	538 507 486 435 409	356 349 329 319 313	168 152 147 144 144	114 119 126 126 124
21 22 23 24 25	355 355 355 351 347	237 266 273 300 311		176	234 219 231 222 210	1, 220 1, 040 926 863 790	843 907 936 917 863	578 578 592 619 722	391 366 342 319 303	291 273 252 234 222	139 142 139 134 122	126 124 122 122 122 119
26	344 344 344 344 344 336	322 318 314 294 304		180	225 228 228	737 700 680 670 570 530	848 819 727 746 770	980 976 936 912 878 819	282 282 279 279 267	216 208 213 216 210 197	139 132 129 134 134 122	119 122 122 126 157

Monthly discharge of Bear River at Harer, Idaho, for the year ending September 30, 1926

36	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October	370	325	348	21, 400
November December	_ <b></b>	237	299 236	17, 800 14, 500
January February	243	190	186 227	11, 400 12, 600
March April	1,320 936	225 490	631 751	38, 80 44, 70
May June	756	578 267	767 495	47, 200 29, 500
JulyAugust	366 191	197 122	268 161	16, 500 9, 900
September	157	114	126	7, 500
The year	1, 320	114	375	272,00

## BEAR RIVER AT ALEXANDER, IDAHO

LOCATION.—In NW. ¼ sec. 17, T. 9 S., R. 41 E., 600 feet below Soda hydroelectric plant, half a mile southeast of Alexander, Caribou County, 3 miles above intake of Last Chance Canal, and 6 miles above dam of Utah Power & Light Co. near Grace.

Drainage area.—3,840 square miles (measured on Utah Power & Light Co.'s map).

RECORDS AVAILABLE.—March 27, 1911, to September 30, 1916; and April 17, 1919, to September 30, 1926.

Gage.—Stevens water-stage recorder on right bank; inspected by Karl Gilgen. Discharge measurements.—Made from cable about 200 feet below gage.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. Moss grows luxuriantly in the summer months since the construction of the Soda reservoir. EXTREMES OF DISCHARGE.—1911-1916, 1919-1926: Maximum stage recorded, 15.95 feet December 11, 1919, during ice-affected period; maximum discharge, 4,590 second-feet May 9, 1922, at gage height 10.14 feet; minimum stage, 4.35 feet at 2 p. m. March 12, 1925 (discharge, 80 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Water is diverted above station for irrigation and for storage in Bear Lake.

REGULATION.—Flow regulated by operation of Bear Lake storage reservoir and Soda hydroelectric plant.

Accuracy.—Stage-discharge relation affected by moss during summer. Rating curves well defined. Water-stage recorder operated successfully during year, except as stated in footnote to table of daily discharge. Daily discharge determined by applying to rating table mean daily gage height ascertained by inspection of recorder graph. Records good.

COOPERATION.—Data collected and records compiled by Utah Power & Light Co. (under supervision of the Geological Survey) in connection with Federal Power Commission, project 20, Idaho.

Discharge measurements of Bear River at Alexander, Idaho, during the year ending September 30, 1926

,													
Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge					
Oct. 9	Feet 2. 07 2. 09 2. 08 2. 07 2. 08 2. 06 1. 94 1. 97 2. 17	Secft. 881 883 896 890 905 928 894 838 811 902 976	Jan. 10	Feet 0. 12 1. 86 1. 98 1. 78 1. 86 2. 02 1. 79 1. 77 1. 78 1. 77	Secft. 28 764 848 717 759 873 704 704 706 709 599	Apr. 15	Feet 2. 04 1. 97 2. 20 2. 37 2. 48 1. 92 2. 44 2. 44 2. 44 2. 96 2. 63 2. 56	Secft. 868 791 1, 040 1, 230 1, 330 829 1, 200 1, 080 1, 520 1, 190 1, 190					
Jan. 10	.12	30	Apr. 9	1.93	797		ł	l					

Daily discharge, in second-feet, of Bear River at Alexander, Idaho, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	888	760	821	669	727	760	644	868	1,000	1, 160	1, 120	1,330
2 3	888 888	790 770	737 656	688 527	669 694	766 682	626 555	861 1,080	1, 140 1, 050	1, 140 1, 050	1, 210 1, 210	1,300 1,290
4	737	760	643	720	669	550	669	1, 220	1,030	450	1, 220	1, 140
5		800	582	834	662	632	933	1, 220	1,090	410	1, 280	1,050
6	793	821	669	733	656	675	840	1, 220	1,050	1, 240	1, 220	1,020
7	786	786	737	746	538	590	834	1, 220	1, 140	1, 160	1, 190	1, 240
8	682	612	723	753	656	669	773	1, 170	1, 180	1, 170	1, 180	1, 260
9	779	779	723	766	650	662	773	963	1,220	1,170	900	1, 240
10		793	709	550	720	656	820	1, 210	1, 150	1,010	1, 110	1, 240
11	723	858	709	793	682	669	773	1, 180	1,060	688	1, 200	1, 140
12	779	786	716	727	688	632	834	1, 210	1,100	1,060	1, 150	1,020 1,220
13 14	772 772	814 821	582 669	868 813	675 614	650 442	890 941	1, 200 1, 230	1,000 1,100	941 1, 050	1, 200 1, 160	1, 270
15	758	835	682	760	733	584	820	1, 170	1, 130	1,010	933	1, 220
16		966	807	720	753	580	760	948	1, 140	1, 130	1, 130	1,270
17	702	850	779	714	746	570	883	861	1, 180	1, 170	1, 230	1, 190
18	656	814	737	793	753	590	733	890	1, 150	1,280	1,150	1,170
19	858	793	744	820	773	644	766	890	1, 110	1,310	1, 100	1,030
20	800	807	570	820	701	656	854	897	933	1, 220	1,210	1, 110
21		865	643	806	675	511	· 800	883	1, 120	1, 250	1, 130	1, 180
22		744	737	773	701	662	760	912	1, 130	1, 280	993	1, 180
23	744	842	695	746	786	669	834	912	1, 100	1,220	1, 180	1, 180
24		786 807	676 340	688 779	827 779	662 644	800 786	993	1, 140	1,060 1,110	1, 190 1, 210	1, 210 1, 210
25		1 1			, ,			1,100	1,090	, -		
26	800	786	582	779	786	669	861	1, 140	1,060	1, 240	1, 190	912
27 28	858 730	858 835	588 636	868 827	786 638	656 550	876 868	1,090	890 1,080	1, 190 1, 280	1, 210 1, 140	1, 130 1, 150
2829	723	716	682	773	030	656	904	1, 100 1, 180	1, 130	1, 280	1, 030	1,060
30	730	751	758	669		701	926	1,060	1, 180	1,300	1, 180	1,020
31	1,080		814	608		675		1,000		1, 230	1, 210	

NOTE.—No gage-height record Nov. 1-4, Mar. 16, 17, June 11-13, July 3-8, July 20 to Aug. 14, Sept. 15-18; discharge determined from gate openings and kilowatt output of Soda power plant.

Monthly discharge of Bear River at Alexander, Idaho, for the year ending September 30, 1926

	Discha	rge in second	1-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October	1,080	650	788	48, 500	
November		612	800	47, 600	
December	821	340	682	41,900	
January	868	527	746	45, 900	
February	827	538	705	39, 200	
March	766	442	636	39, 100	
April	941	555	805	47,900	
May	1, 230	861	1,060	65, 200	
June	1, 220	890	1, 100	65, 500	
July		410	1, 110	68, 200	
August	1, 280	900	1, 150	70, 700	
September	1, 330	912	1, 170	69, 600	
The year	1,330	340	896	649, 000°	

## BEAR RIVER NEAR WESTON, IDAHO

- LOCATION.—In SW. ¼ SE. ¼ sec. 17, T. 16 S., R. 39 E., at Weston-Fairview highway bridge, 3 miles east of Weston, Franklin County.
- RECORDS AVAILABLE.—October 21, 1919, to September 30, 1925. Records at this station are comparable with those obtained at gaging station near Preston, Idaho, maintained October 11, 1889, to January 15, 1917.
- Gage.—Au continuous recorder on left bank 50 feet above bridge; inspected by Mrs. Mart Rasmussen.
- DISCHARGE MEASUREMENTS.—Made from highway bridge immediately below gage.
- Channel and control.—Bed composed of gravel and earth. Banks fairly high and covered with brush. One channel at all stages. Low-water control is fairly well defined gravel riffle 200 feet below gage; not permanent.
- EXTREMES OF DISCHARGE.—1920-1926: Maximum stage, 12.1 feet May 8 or 9, 1922 (discharge, 6,100 second-feet); minimum mean daily discharge, 100 second-feet November 1, 1925.
- Ice.—Stage-discharge relation usually affected by ice.
- Diversions.—Numerous irrigation diversions above. West Cache Canal diverts about 15 miles upstream and carries about 30,000 acre-feet around this station.
- REGULATION.—Considerable diurnal fluctuation is caused by operation of Oneida power plant, about 25 miles above, and seasonal flow is affected by storage at Bear Lake, about 160 miles above.
- Accuracy.—Stage-discharge relation changed in January. Rating curves fairly well defined. Operation of water-stage recorder satisfactory, except as stated in footnote to table of daily discharge. Records good when recorder was in operation. Estimated records fair.
- Cooperation.—Data collected and records compiled by Utah Power & Light Co. (under supervision of the Geological Survey) in connection with records furnished for Federal Power Commission, project 20, Idaho.

Discharge measurements of Bear River near Weston, Idaho, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 1 Nov. 11 Mar. 17 May 6 May 14 May 20	Feet 3. 96 2. 94 2. 65 3. 70 2. 78 2. 84	Secft. 1, 100 600 444 875 445 608	June 8. June 18. July 7. July 14. July 15. Aug. 20.	Feet 3. 12 3. 44 3. 30 3. 38 3. 45 2. 58	Secft. 633 894 819 840 906 393	Aug. 21 Sept. 9 Do Do Sept. 14	Feet 2. 94 2. 94 3. 11 3. 53 2. 88	Secft. 595 632 745 963 513

Daily discharge, in second-feet, of Bear River near Weston, Idaho, for the year ending September 30, 1926

		<del></del>										
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	872 1, 190	100 320 1,340 1,240 1,230		710 1,000 1,200 1,750 1,810	742 1, 040 1, 140 932 963	968 945 995 1, 180 1, 360	752 864 935 868 1,020	788 1,080 1,060 1,100 1,240	945 792 819 963 1, 120	945 972 914 896 788	1,070 842 1,080 1,130 1,240	1, 190 1, 240 1, 000 1, 060 1, 200
6	1.040	1,070 1,100 1,060 994 965		1, 190 940 1, 220 1, 020 960	1,060 882 914 900 1,310	1, 290 855 720 1, 050 1, 180	1,090 1,400 1,540 1,560 1,480	1,300 1,110 1,040 1,160 1,020	585 518 1,020 1,060 662	837 909 918 706 684	945 990 1, 250 1, 160 1, 110	1,090 1,030 1,160 1,160
11	723	994 1, 140 1, 220 1, 230 1, 080		1,080 1,350 630 980 1,390	832 900 1, 240 1, 130 814	904 1,020 1,040 810 1,040	1, 220 1, 060 1, 520 1, 180 1, 020	986 1, 040 1, 320 1, 100 981	752 904 828 968 774	742 585 742 778 855	760 1, 120 1, 140 900 995	1, 160 1, 120 1, 080 1, 180 1, 230
16	965	831 1, 270 1, 270 1, 220 1, 220	)1, 000	1, 200 540 980 1, 160 1, 160	1,000 1,090 950 850 1,150	778 1,090 1,320 968 968	1, 340 1, 240 1, 180 1, 260 1, 200	1, 040 896 1, 100 819 778	940 936 936 810 765	774 954 1,060 1,160 995	909 1,160 940 1,330 1,070	1, 130 1, 140 1, 140 1, 080 1, 160
21	754	1, 250 1, 050 764 1, 180 1, 780		1, 120 1, 080 1, 370 760 930	1, 230 932 1, 040 1, 090 958	666 580 765 968 760	1, 220 1, 360 1, 300 1, 400 981	1, 090 855 922 666 882	608 711 783 801 774	990 958 1, 090 850 788	995 1, 140 954 1, 160 1, 040	1, 160 1, 190 1, 130 1, 490 1, 190
26	876 1,130 1,190 1,640	1,080 984 1,120 728 1,220		1,160 1,100 1,080 1,110 1,240 1,140	1,000 1,190 1,100	990 1, 050 698 850 1, 040 832	882 1, 180 1, 200 1, 040 873	567 770 968 968 536 716	855 792 796 774 810	936 900 1,040 1,040 1,040 922	1, 160 1, 120 1, 240 878 1, 290 1, 160	886 1, 280 1, 020 1, 150 1, 140

Note.—No gage-height record Dec. 4-10, 18-31, and Jan. 1-28; discharge estimated by comparison with record of Bear River below Oneida.

Monthly discharge of Bear River near Weston, Idaho, for the year ending September 30, 1926

	Discha	arge in second	-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	1, 780 1, 810 1, 310 1, 360 1, 560 1, 320 1, 120 1, 160	540 742 580 752 536 518 585 760 855	1,020 1,070 21,000 1,110 1,010 957 1,170 964 827 896 1,070 1,130	62, 700 63, 700 61, 500 68, 200 56, 100 58, 800 69, 600 59, 300 49, 200 65, 800 67, 200
The year	1,810	100	1, 020	737, 000

Estimated.

#### BEAR RIVER NEAR COLLINSTON, UTAH

LOCATION.—In W. ½ sec. 34, T. 13 N., R. 2 W., a quarter of a mile below power plant of Utah Power & Light Co., at railroad siding called Wheelon, 4 miles north of Collinston, Box Elder County. Little Malad River enters from right 20 miles downstream.

Drainage area.—6,000 square miles (measured on topographic and United States Forest Service maps).

RECORDS AVAILABLE.—July 1, 1889, to September 30, 1926.

Gage.—Friez eight-day water-stage recorder on left bank; inspected by H. O. Durfey.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. Left bank high and covered with willows; not subject to overflow. Right bank fairly high and covered with willows; may be overflowed by exceptionally high floods. Control not well defined.

EXTREMES OF DISCHARGE.—Maximum stage during year, 3.93 feet at 8 p. m. April 9 (discharge, 3,380 second-feet); minimum, 0.88 foot June 8 (discharge, 34 second-feet).

1889-1926: Maximum stage recorded, 7.7 feet June 7-10, 1909 (discharge, 11,600 second-feet); minimum, 0.42 foot at midnight August 5, 1920 (discharge practically zero).

ICE.—Stage-discharge relation seldom affected by ice.

Diversions.—West Side and Hammond Canals divert water on both sides of Bear River about 2 miles above station. Water can be used from either or both of these canals to supply Wheelon power plant. Water passing Wheelon penstocks is used for irrigation or can be returned to river. Numerous ditches farther upstream divert water for irrigation.

REGULATION.—Flow affected by operation of power plants and by storage and release of water at Bear Lake Reservoir.

Accuracy.—Stage-discharge relation changed slightly during August and again during later part of February. Rating curves well defined. Operation of water-stage recorder satisfactory except October 17–23, December 13–18, January 23, March 21–26, and June 20–25, when daily readings were obtained. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph or daily reading. Records good.

COOPERATION.—Gage-height record and discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Bear River near Collinston, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 14 a Jan. 29 a Mar. 18 a	Feet 2. 65 2. 48 2. 90	Secft. 1, 450 1, 260 1, 870	Apr. 8 4 May 18 June 11 4	Feet 3. 60 2. 61 1. 36	Secft. 2, 790 1, 490 271	July 16 a Aug. 17 a Sept. 17 a	Feet 1. 70 1. 58 1. 84	Secft. 508 427 625

a Made by Utah Power & Light Co.

Daily discharge, in second-feet, of Bear River near Collinston, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	1, 300 1, 340 1, 260 1, 080 1, 310	1, 360 860 830 1, 770 1, 730	1,500 1,610 1,460 1,430 1,700	1, 460 1, 240 1, 420 1, 510 1, 400	1, 630 1, 380 1, 580 1, 670 1, 520	1, 680 1, 620 1, 630 1, 810 2, 090	1, 630 1, 620 1, 640 1, 760 1, 720	2, 040 1, 900 1, 970 1, 820 2, 020	311 498 421 318 406	76 198 169 169 169	325 290 239 311 390	579 562 588 579 527
6 7	1,050 1,220 1,310 1,360 1,320	1, 660 1, 490 1, 520 1, 400 1, 430	1, 730 1, 270 1, 100 1, 350 1, 360	1, 290 1, 460 1, 470 1, 450 1, 360	1, 560 1, 490 1, 360 1, 450 1, 540	2, 120 2, 120 1, 720 1, 730 2, 120	1,890 2,400 3,010 3,220 3,230	2, 550 2, 780 2, 580 2, 400 2, 330	477 271 76 226 360	119 169 469 800 687	469 428 444 596 678	596 544 562 614 632

Daily discharge, in second-feet, of Bear River near Collinston, Utah, for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
11	1,050 1,030	1, 410 1, 310 1, 530 1, 560 1, 530	1, 530 1, 530 1, 770 1, 340 997	1, 550 1, 210 1, 640 1, 260 1, 190	1, 840 1, 470 1, 410 1, 680 1, 490	2, 090 1, 850 1, 850 1, 730 1, 620	3, 010 2, 560 2, 440 2, 730 2, 330	2, 110 1, 980 1, 890 1, 950 1, 850	169 106 215 198 169	570 579 510 477 485	544 493 588 623 502	678 669 641 579 588
16	1,310 1,570	1, 340 1, 200 1, 500 1, 500 1, 530	1, 640 1, 430 1, 340 1, 270 1, 170	1, 440 1, 400 1, 200 1, 050 1, 440	1, 410 1, 420 1, 420 1, 500 1, 470	1, 730 1, 660 1, 940 2, 150 1, 980	2, 260 2, 580 2, 560 2, 560 2, 680	1, 730 1, 780 1, 640 1, 560 1, 240	124 169 264 264 198	477 436 413 469 493	469 421 406 421 535	641 669 705 715 705
21 22 23 24 25	1, 190 1, 010 1, 370	1, 560 1, 490 1, 350 1, 210 1, 540	1, 310 1, 730 1, 610 1, 530 1, 530	1, 320 1, 400 1, 450 1, 400 1, 410	1, 670 1, 670 1, 500 1, 550 1, 640	1, 980 1, 720 1, 040 1, 590 1, 500	2, 700 2, 610 2, 700 2, 700 2, 640	1, 220 1, 220 1, 050 1, 050 641	144 40 40 40 51	469 461 452 436 375	553 444 493 421 461	696 743 850 830 1,050
26	975 1, 100	1, 810 1, 400 1, 530 1, 540 1, 170	1, 250 1, 140 1, 080 1, 350 1, 450 1, 540	1, 230 1, 400 1, 400 1, 280 1, 280 1, 560	1, 550 1, 550 1, 730	1, 300 1, 720 1, 760 1, 490 1, 500 1, 720	2, 190 2, 050 2, 330 2, 360 2, 300	752 535 527 562 588 360	76 129 102 69 72	284 264 290 332 339 368	477 502 527 596 527 493	1, 030 771 900 820 1, 260

Monthly discharge of Bear River near Collinston, Utah, for the year ending September 30, 1926

	Discha	arge in second	-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	1,770 1,640 1,840 2,150 3,230 2,780 493	975 830 997 1, 050 1, 360 1, 040 1, 620 360 40 76 239 527	1, 250 1, 440 1, 420 1, 370 1, 540 1, 760 2, 410 1, 570 200 387 473 771	76, 900 85, 700 87, 300 84, 200 85, 500 108, 006 143, 000 11, 900 23, 800 29, 100 42, 300
The year	3, 230	40	1, 210	874, 000

## SODA CREEK AT LAU RANCH, NEAR SODA SPRINGS, IDAHO

LOCATION.—In sec. 12, T. 8 S., R. 41 E., 100 feet east of Lau ranch house and 6 miles north of Soda Springs, Caribou County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—April 1, 1923, to October 31, 1926, when station was discontinued.

GAGE.—Vertical staff on left bank; read by George Schmidt.

DISCHARGE MEASUREMENTS.—Made by wading.

Channel and control.—Bed composed of lava rock and fine gravel; subject to slight aquatic growth. Control formed by well-defined riffle 20 feet below gage. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period September 30, 1925, to October 31, 1926, 2.30 feet March 19 (discharge, about 104 second-feet); minimum discharge (estimated), 1.0 second-foot January 21 to February 5 and October 18-31, 1926.

1923-1926: Maximum stage recorded, 2.88 feet April 14, 1924 (discharge, about 172 second-feet); minimum discharge (estimated), 0.5 second-foot January 1-31 and December 18-31, 1924.

ICE.—Stage-discharge relation seriously affected by ice during winter.

DIVERSIONS.—Schmidt ditch diverts a small amount of water for irrigation 150 feet above gage on right bank.

REGULATION.—Flow affected by placement and removal of flashboards in low earth dam at outlet of Fivemile Meadows, about 400 feet above gage; and by diversion above.

Accuracy.—Stage-discharge relation changed once during year; affected by ice January 2 to February 13. Rating curve used October 1 to March 19 well defined below 40 second-feet; curve used March 20 to October 31 well defined between 4 and 40 second-feet; above 40 second-feet they are extended. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as noted in footnote to table of daily discharge. Records fair except for estimated periods, for which they are poor.

Discharge measurements of Soda Creek at Lau ranch, near Soda Springs, Idaho, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	te Gage Dis- height, charge Date		Date	Gage height	Dis- charge
Mar. 22	Feet 1. 28 . 56	Secft. 19. 6 1. 9	May 23 June 17	Feet 1. 01 . 85	Secft. 9. 7 5. 6	July 27 Sept. 17	Feet 0. 75 . 53	Secft. 3. 9 1. 2

Daily discharge, in second-feet, of Soda Creek at Lau ranch, near Soda Springs, Idaho, for the period October 1, 1925, to October 31, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1 2 3 4 5	4. 5 4. 5 4. 2 4. 2 4. 2	4. 0 4. 2 4. 2 4. 1 4. 1	4. 5 4. 5 4. 2 4. 2 4. 2	3.1	1.0	3. 1 3. 1 3. 1 3. 1 3. 1	12 12 12 22 29	1. 8 1. 8 1. 8 1. 9 3. 0	6. 5 5. 5 5. 1 4. 7 21	3. 8 3. 8 3. 5 3. 5 3. 5	3. 8 3. 6 3. 6 3. 6 3. 6	2. 1 2. 1 1. 9 1. 9 1. 8	3. 2 3. 2 3. 2 3. 0 3. 0
6 7 8 9 10	4. 0 4. 0 4. 0 4. 0 4. 0	4.0 4.0 4.0 4.0 3.7	4.5 4.8 4.8 4.8 4.8		1.5	3. 1 3. 1 3. 1 3. 1 3. 1	40 34 32 28 26	6.3 6.7 7.2 1.8 1.8	14 14 12 9. 2 6. 7	3. 2 3. 2 3. 5 3. 5 3. 5	3. 5 3. 5 3. 5 3. 2 3. 2	1.8 1.8 1.7 1.7	2.8 2.8 2.4 2.4 2.1
11 12 13 14 15	4. 0 4. 0 4. 0 3. 7 3. 4	3. 7 3. 7 3. 7 3. 4 3. 7	4.8 4.8 4.8 4.8 4.8	1.5	2. 9 2. 9	3. 1 3. 1 3. 1 3. 7 4. 5	23 21 18 16 15	2. 1 3. 0 6. 7 8. 7 10	8. 0 12 12 8. 7 6. 3	3. 2 3. 2 3. 2 3. 4 3. 5	3. 2 3. 2 3. 0 3. 0 3. 0	1.7 1.7 1.7 1.7 1.6	2. 1 1. 8 1. 6 1. 6 1. 5
16 17 18 19 20	3. 4 3. 4 3. 4 3. 4 3. 4	3.7 3.8 4.0 4.2 4.2	4.8 4.8 4.8 4.8		2.9 2.9 2.9 2.9 2.9	23 44 69 104 83	15 14 12 1.8 1.8	10 10 9.8 9.8 9.8	5. 9 5. 7 5. 9 5. 9 5. 5	9. 8 10 5. 5 4. 7 4. 4	3. 0 3. 0 3. 0 2. 9 2. 9	1.6 1.5 1.5 1.5 1.5	1.5
21 22 23 24 25	3. 4 3. 7 3. 7 3. 7 4. 0	4. 2 4. 2 4. 2 4. 2 4. 2	4. 8 5. 1 5. 1 5. 1 5. 1		3. 1 3. 1 3. 1 3. 1 3. 1	55 20 16 14 13	2. 1 6. 7 9. 2 15 17	9. 2 9. 2 9. 5 9. 2 9. 2	5. 1 5. 1 4. 7 4. 7 4. 7	4. 4 4. 4 4. 1 4. 1 4. 1	2.9 2.9 2.8 2.8 2.8	1. 5 1. 5 1. 5 1. 5 1. 5	1.0
26	4. 0 4. 0 4. 0 4. 0 4. 0 4. 0	4. 2 4. 2 4. 5 4. 5 4. 5	5. 1 4. 8 4. 5 4. 5 4. 2 4. 1	1.0	3. 1 3. 1 3. 1	12 12 12 12 12 12	15 1.8 1.8 1.8 1.8	9. 0 9. 0 8. 7 8. 7 8. 2 7. 7	4. 4 4. 1 3. 8 3. 8 3. 8	4. 0 4. 0 4. 0 3. 8 3. 8 3. 8	2.8 2.8 2.8 2.5 2.3 2.3	1.5 1.5 1.5 1.5 3.2	

NOTE.—Stage-discharge relation affected by ice Jan. 2 to Feb. 13; water below gage Oct. 18-31, 1926; estimated discharge based on observer's notes and weather records. Braced figures show mean discharge for periods indicated.

Monthly discharge of Soda Creek at Lau ranch, near Soda Springs, Idaho, for the period October 1, 1925, to October 31, 1926

25.0	Discha	arge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November November December January February March April May June July August September The year	4. 5 5. 1 3. 1 3. 1 104 40 10 21 10	3.4 3.4 4.1 3.1 1.8 1.8 3.8 3.2 2.3 3.1.5	3. 87 4. 04 4. 70 1. 44 2. 22 18. 1 15. 2 6. 83 7. 29 4. 21 3. 06 1. 71	238 240 289 88.5 123 1, 110 904 420 434 259 188 102	
October 1926	3. 2		1. 73	106	

NOTE.—The Schmidt ditch diverted from right bank 150 feet above gage the following amounts of water as determined from water master's notes: June, 86 acre-feet; July, 22 acre-feet. Ditch reported dry except June 1 to July 15.

#### SODA CREEK NEAR SODA SPRINGS, IDAHO

LOCATION.—In sec. 24, T. 8 S., R. 41 E., at George Schmidt ranch, one-eighth of a mile below confluence of two branches of creek and 5 miles north of Soda Springs, Caribou County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 5, 1913, to October 31, 1926, when station was discontinued.

GAGE.—Vertical staff set in concrete on left bank a quarter of a mile south of ranch house; read by George Schmidt.

DISCHARGE MEASUREMENTS.—Made by wading.

Channel and control.—Bed composed of lava rock. Control is a reef about 15 feet below gage. Stage-discharge relation affected by aquatic growth.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period October 1, 1925, to October 31, 1926, 1.24 feet March 19 (discharge, 140 second-feet); minimum discharge, 43 second-feet September 20–29.

1913-1926: Maximum stage recorded, 5.3 feet April 6, 1913 (discharge, 324 second-feet); minimum discharge, 38 second-feet January 8 and 12-15, 1919 (stage, 3.95 feet).

ICE.—Stage-discharge relation not affected by ice.

Diversions.—Schmidt ditch diverts water above station; a small ditch diverts water just below gage.

Accuracy.—Stage-discharge relation not permanent on account of effect of aquatic growth, but flow is uniform. Gage read to hundredths once daily. Daily discharge ascertained by using shifting-control method throughout the year, based on standard rating curve and several curves parallel to it. Records April to September good; others fair.

Discharge measurements of Soda Creek near Soda Springs, Idaho, during the year ending September 30, 1926

,	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Mar Apr		Feet 0. 88 . 79	Secft. 73. 0 49. 9	May 23 June 17	Feet 0. 83 . 84	Secft. 55. 8 50. 8		Feet 0. 85 . 83	Secft. 49. 3 43. 9

Daily discharge, in second-feet, of Soda Creek near Soda Springs, Idaho, for the period October 1, 1925, to October 31, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.
1 2 3 4 5	52 52 52 52 52 52	52 52 52 51 51	53 53 52 52 52	49 49 49 49	51 49 49 49 49	52 52 52 52 52 52	67- 67 67 73 83	53 52 52 52 52 53	51 48 48 47 47	47 47 47 47 47	48 48 48 47 47	46 45 45 45 44	46 46 46 46 45
6 7 8 9 10	52 52 52 52 52 52	51 51 51 49 49	52 52 52 52 52 52	49 49 49 49 49	49 49 49 49 49	52 52 52 52 52 52	87 84 81 81 78	53 54 54 52 51	58 58 55 54 53	47 47 47 47 47	47 47 47 47 47	44 45 45 45 45 45	45 44 44 44 45
11 12 13 14 15	52 52 52 51 51	49 49 49 49 48	52 52 52 52 52 52	49 49 49 49 49	49 49 49 49 49	52 52 52 59 70	73 73 70 70 67	52 52 53 53 53	52 54 54 54 54 53	46 46 46 46 46	47 47 47 47 47	44 44 44 44 44	45 45 45 45
16 17 18 19 20	52 51 51 51 51	49 49 48 48 48	53 53 53 53 53	51 51 51 51 51	49 49 49 49 49	89 103 119 140 123	66 66 63 60 54	53 53 53 53 53	51 51 51 51 51	46 51 49 49 49	48 48 48 49 49	44 44 44 44 43	46 46 45 45
21 22 23 24 25	51 51 51 51 51	48 48 48 48 48	53 53 53 53	51 51 51 49 49	51 51 51 51 51	100 73 73 70 70	54 57 59 60 66	53 54 55 55 54	48 48 48 47 47	51 51 51 51 49	48 48 48 48 47	43 43 43 43 43	45 45 45 45 45
26 27 28 29 30	51 51 51 51 51 51	48 48 51 51 52	53 51 51 49 49	49 49 49 49 49	51 51 51	69 69 69 69 69	63 60 51 52 52	53 53 53 53 53 53 52	47 47 47 47 47	49 49 49 49 49	47 47 47 47 47 46	43 43 43 43 45	45 45 45 45 45

NOTE.—Discharge interpolated Feb. 26, 27, and July 26.

# Monthly discharge of Soda Creek near Soda Springs, Idaho, for the period October 1, 1925, to October 31, 1926

	Discha	rge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October 1925-26 October November December January February March April May June July August September The Septembe	52 53 51 51 140 87 55 58 51 49	51 48 49 49 52 51 51 47 46 48	51. 5 49. 5 52. 2 49. 6 70. 3 66. 8 53. 0 50. 5 48. 1 47. 4 44. 0	3, 170 2, 950 3, 210 3, 040 2, 756 4, 320 3, 970 3, 260 2, 910 2, 620	
The year	140	44	45. 1	38, 200 2, 770	

## LOGAN RIVER ABOVE STATE DAM NEAR LOGAN, UTAH

LOCATION.—In sec. 36, T. 12 N., R. 1 E., at Logan plant of Utah Power & Light Co., 125 feet above confluence of tailrace with river and 2½ miles east of Logan, Cache County.

Drainage area.—218 square miles (measured on topographic map).

RECORDS AVAILABLE.—May 7, 1913, to September 30, 1926. June 1, 1896, to July 17, 1903, and April 14, 1904, to December 31, 1912, at old station a quarter of a mile downstream; flow at present station plus that of tailrace comparable to that at old station.

Gage.—Stevens continuous water-stage recorder on right bank about 100 feet west of power house; inspected by operator of power plant.

DISCHARGE MEASUREMENTS.—Made by wading at gage; high-water measurements made from cable 400 feet downstream and flow in tailrace deducted.

Channel and control.—Banks high and clean and not subject to overflow; right bank is dry rubble retaining wall. Control is concrete cut-off wall about 6 feet below gage, rebuilt during August, 1924.

EXTREMES OF DISCHARGE.—Maximum stage during year not recorded; minimum stage, 1.92 feet August 10 (discharge, 12 second-feet).

1913-1926: Maximum stage recorded, 5.6 feet at 9.30 a. m. March 21, 1916 (discharge (estimated), 2,000 second-feet); minimum discharge, 8 second-feet December 11, 1915.

ICE.—Stage-discharge relation seldom affected by ice.

Diversions.—Utah Power & Light Co. diverts water above station for power, and Logan, Hyde Park & Smithfield Canal diverts for irrigation. Logan has a municipal power plant about 2 miles above station, but water is returned to river above two diversions noted. Logan is entitled to divert for municipal supply from 4 to 10 second-feet from springs in sec. 22, T. 12 N., R. 2 E., the quantity depending on the flow in the river.

REGULATION.—Some diurnal fluctuation is caused at times by operation of two power plants.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined below 600 second-feet. Water-stage recorder operated staisfactorily except May 5-9. Daily discharge ascertained by applying mean daily gage height to rating table; estimated May 5-9. Records good.

COOPERATION.—Gage-height record and 7 discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Logan River above State dam near Logan, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 1 Nov. 12 Jan. 27 Mar. 18	Feet 2. 11 2. 02 2. 02 2. 06	Secft. 24. 5 18. 3 19. 9 21. 4	Apr. 6	Feet 2, 18 2, 95 2, 19 1, 97	Secft. 32. 4 175 31. 2 15. 3	Sept. 7 Sept. 15	Feet 2. 02 2. 02	Secft. 17.0 19.6

Daily discharge, in second-feet, of Logan River above State dam near Logan, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept,
1	27 22 20 20 20 22	21 22 22 22 20 19	17 18 17 16 16	19 20 19 19	18 18 18 18 18	20 19 18 17 20	20 20 19 19	232 214 206 217 350	90 81 67 62 57	17 17 17 18 18	15 15 15 14 14	18 18 18 18 18
6	22 20 21 21 21	18 18 18 18 18	16 16 19 19 18	20 19 20 20 20	19 19 18 18 20	19 20 21 22 21	38 28 39 34 33	350 250 225 170 130	50 41 35 35 41	17 18 20 19 28	14 13 13 13 12	18 18 18 18 18

Daily discharge, in second-feet, of Logan River above State dam near Logan, Utah, for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11 12	22 23	18 18	19 19	20 19	19 18	21 21	35 50	111 147	41 29	28 18	13 13	17 17 17 17 17
13	22	18	19	20	18	23	48	167	25	16	13	17
14 15	24	18	18	20	18	26	51	160	22	16	16	17
15	26	17	18	20	18	30	57	164	25	16	22	18
16	22`	17	18	19	20	26	90	197	23	14	20	18
17	22` 22	17	18	19	18	22	120	200	18	14	20	18 17
18	22	17	20	20	18	20	125	183	16	15	22	16 15 16
19	22	17	20	19	18	21	135	178	15	16	22	15
20	23	17	20	18	18	20	172	186	15	16	23	16
21	22	18	19	19	17	20	183	211	15	16	22	16
22	24	18	19	18	18	20	178	206	17	17	20	17 17 16 16
23	22	18	19	19	18	20	123	194	16	16	17	17
24	21	17	19	20	18	22	92	189	17	17	17	16
25	21	18	18	20	18	21	100	164	16	16	18	16,
26	20	18	18	19	18	20	129	130	16	16	17	16
27	20	17	18	18	18	20	170	116	19	16	17	15
28	20	17	18	18	18	20	170	103	18	16	19	15 15 15 16
29	20	17	18	18		19	186	98	16	16	18	15
00	20	18	18	19		20	226	103	16	15	18	16
31	21		18	19		20		100		15	18	

Monthly discharge of Logan River above State dam near Logan, Utah, for the year ending September 30, 1926

October November December: January February March April May June July August	Discha	-feet	Run-off in	
November December: January February March A pril. May	Maximum	Minimum	Mean	acre-feet
•	27 22 20 20 20 20 30 226 350 90 28 23	20 17 16 18 17 17 19 98 15 14 12 15	21. 8 18. 1 18. 2 19. 2 18. 2 20. 9 90. 3 182 31. 8 17. 0 16. 9	1, 340 1, 080 1, 120 1, 180 1, 010 1, 290 5, 370 11, 200 1, 890 1, 050 1, 040
The year	350	12	39. 5	28,600

#### UTAH POWER & LIGHT CO.'S TAILRACE NEAR LOGAN, UTAH

LOCATION.—In NE. ¼ sec. 36, T. 12 N., R. 1 E., 100 feet below power house of Utah Power & Light Co. and 2½ miles east of Logan, Cache County.

RECORDS AVAILABLE.—May 7, 1913, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank just above weir; inspected by plant operators.

DISCHARGE MEASUREMENTS.—Made from footbridge just above gage.

Channel and control.—A rectangular wooden weir, having metal crest strip, just below gage acts as control. Length of crest, 17.7 feet. Capacity of channel above weir not sufficient to eliminate all velocity of approach. Stage of zero flow, zero on gage.

ICE.—Stage-discharge relation not affected by ice.

REGULATION.—Flow affected by operation of power plant.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined.

Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

Cooperation.—Gage-height record and 8 discharge measurements furnished by Utah Power & Light Co.

Canal diverts water from right bank of Logan River in SE. ¼ SW. ¼ sec. 29, T. 12 N., R. 2 E. Water is returned to river 125 feet below gaging station on Logan River above State dam in NE. ¼ sec. 36, T. 12 N., R. 1 E. Water is used for power development.

Discharge measurements of Utah Power & Light Co.'s tailrace near Logan, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 9	Feet 1. 42 1. 18 1. 57 1. 90	Secft. 110 81.6 134 181	May 20	Feet 1. 97 1. 96 1. 66 1. 30	Secft. 189 189 144 94.0	Sept. 7 Sept. 15	Feet 1. 22 1. 20	Secft. 84. 4 83. 1

Daily discharge, in second-feet, of Utah Power & Light Co.'s tailrace near Logan, Utah, for the year ending September 30, 1926

		1	_				1 .				1 .	T
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apŗ.	May	June	July	Aug.	Sept.
1	112	114	100	82	90	78	111	188	191	158	111	96
2	117	117	101	89	88	80	104	185	191	156	113	96
3	117	120	105	89	86	82	104	188	191	155	113	95
4	116	117	105	89	86	86	104	186	190	156	113	95 91
5	116	116	105	85	85	91	118	188	190	156	113	91
6	120	116	102	86	85	91	155	186	191	155	112	92 89
7	119	110	100	88	85	85	172	188	190	155	108	89
8	115	110	97	85	85	89	188	188	190	155	108	86
9	114	111	95	84	85	90	188	188	190	154	109	89
10	112	110	95	83	84	90	191	190	185	155	111	89 86
11	112	110	95	84	88	95	193	190	186	152	111	88 84 82
12	117	111	95	84	86	92	191	191	186	152	109	84
13	120	105	95	83	88	95	191	191	186	148	108	82
14	116	105	95	84	88	97	193	191	188	143	104	84 84
15	112	105	95	83	88	97	194	191	186	143	96	84
16	115	106	95	84	89	107	193	191	186	139	96	83 86 84 82 82
17	117	108	95	83	88	125	193	191	186	135	96	86
18	120	106	96	83	86	135	191	191	186	131	96	84
19	116	105	96	85	83	124	191	191	185	125	98	82
20	116	103	96	80	81	122	191	191	182	128 ′	97	82
21	112	101	96	81	82	120	191	190	178	127	96	82
22	110	101	96	84	82	125	191	191	175	127	98	84 84 86 88
23	111	103	95	82	84	131	191	191	175	125	98	84
24	101	102	93	84	83	141	191	191	174	124	96	86
25	92	102	92	85	78	132	190	191	174	122	95	88
26	92	101	91	85	81	127	190	191	166	122	94	88 86 85
27	92	102	91	83	77	122	190	191	158	116	91	86
28	92	102	91	85	78	120	188	191	160	116	94	85
29	105	101	91	91		112	188	191	160	114	95	84
30	114	101	88	92		106	188	191	158	112	95	91
31	114		82	90		114		191		111	96	
							,	<u>.                                    </u>	<u></u>		·	<u> </u>

Monthly discharge of Utah Power & Light Co.'s tailrace near Logan, Utah, for the year ending September 30, 1926

26. 13	Discha	arge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November December January February March April May June July August	120 105 92 90 141 194 191 191 158	92 101 82 80 77 78 104 185 158 111	111 107 95. 6 85. 0 84. 6 106 175 190 181 137	6, 820 6, 370 5, 880 5, 230 4, 700 6, 520 10, 400 11, 700 10, 800 8, 420 6, 270	
September		82	86.9	5, 170	
The year	194	77	122	88, 300	

#### LOGAN, HYDE PARK & SMITHFIELD CANAL NEAR LOGAN, UTAH

LOCATION.—In SE. ¼ sec. 25, T. 12 N., R. 1 E., at concrete rating flume 1¼ miles below head of canal and 2½ miles east of Logan, Cache County.

RECORDS AVAILABLE.—Fragmentary records 1904 to 1926.

GAGE.—Stevens continuous water-stage recorder on right bank at rating flume; inspected by employees of Logan, Hyde Park & Smithfield Canal Co.

DISCHARGE MEASUREMENTS.—Made from foot plank at flume or by wading.

Channel and control.—Rectangular concrete rating flume. Stage of zero flow at zero on gage.

ICE.-None.

Diversions.-None above gage.

REGULATIONS.—Flow regulated by head gates at diversion works.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve well defined. Operation of water-stage recorder satisfactory except as noted in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimates fair.

Cooperation.—Gage-height record furnished by Logan, Hyde Park & Smithfield Canal Co.

Canal diverts water from Logan River in NE. ¼ NE. ¼ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic use in territory north of Logan.

Discharge measurements of Legan, Hyde Park & Smithfield Canal near Logan, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	. Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 1 Dec. 7 May 6	Feet 0. 46 . 18 1 89	Secft. 14. 8 3. 3 96. 3	May 20	Feet 2. 03 2. 01 . 74	Secft. 114 102 31	Aug. 18 Sept. 7 Sept. 15	Feet 0. 64 . 62 . 62	Secft. 24. 7 27. 6 22. 0

Daily discharge, in second-feet, of Logan, Hyde Park & Smithfield Canal near Logan, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14 14 14 14 14		4 3 3 4 4	3 3 3 3 3	3 3 3 . 3	3 3 3 3 3	2 2 2 2 2 2	116 117 118 114 113	111 111 116 112 109	43 40 37 36 35	31 31 34 32 31	26 26 26 26 26 26
6	16 16 15 15 14		4 4 3 3,	<b>3</b> 3 3 3 3 3		3 3 3 3	2	105 98 97 94 92	112 113 111 109 95	36 36 51 46 31	30 30 30 30 30 30	26 26 26 26 26 26
11	13 13 13 13 8	4	3 3 3 3	3 3 3 3		3 3 2 2 2	2	90 54 36 36 21	83 85 80 78 65	23 34 34 34 33	29 29 28 28 28	26 26 25 25 25 25
16			2 2 3 3,	3 3 3 3 3 3	3	2 3 3 2 2	26	4 46 80 100 115	65 62 49 50 51	32 32 32 32 34	29 27 26 27 27	25 27 29 29 28
21	4	4 4 4 4	3 3 3 3	3 3 3 3		2 2 2 2 2 2	46 65 70 87 103	116 113 111 113 115	48 49 46 45 41	34 34 33 32 32	27 27 26 26 26 26	28 28 25 24 24
26		4 4 4 4	3 2 2 3 2 3	3 4 4 2 3 3	<b> </b>	2 2 2 2 2 2 2	109 102 106 113 114	111 113 119 118 117 116	43 45 43 42 40	33 32 32 32 31 31	27 27 27 27 26 26 26	23 23 23 24 27

Note.—No gage-height record, discharge estimated, Oct. 12 to Nov. 21, Dec. 24-25, Feb. 5 to Mar. 3, Apr. 7-9, and July 13. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Logan, Hyde Park & Smithfield Canal near Logan, Utah for the year ending September 30, 1926

	Discha	Discharge in second-feet					
Month	Maximum	Minimum	Mean	acre-feet			
October	16		8. 7 4. 0	535 238			
December	4 4	2 2	3. 0 3. 0	184 184			
February March April	3	2	3. 0 2. 5 32. 6	167 154 1, 940			
MayJune	119 116	4 40	93. 8 73. 6	5, 770 4, 380			
July . August. September	34	23 26 23	34. 5 28. 4 25. 8	2, 120 1, 750 1, 540			
The year	119		26. 2	19,000			

#### BLACKSMITH FORK ABOVE UTAH POWER & LIGHT CO.'S DAM NEAR HYRUM, UTAH

LOCATION.—In NE. ¼ sec. 8, T. 10 N., R. 2 E., 1 mile above diversion dam, 3½ miles above power plant of Utah Power & Light Co., and 6 miles east of Hyrum, Cache County.

Drainage area.—260 square miles (measured on topographic maps and map of Cache National Forest).

RECORDS AVAILABLE.—July 19, 1900, to December 31, 1902, and November 28, 1913, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank 500 feet above wagon bridge and nearly a mile above dam; inspected by watchman at dam.

DISCHARGE MEASUREMENTS.—Made by wading or from cable 1 mile above gage. Channel and control.—Bed rough but fairly permanent; one channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.36 feet April 6 (discharge, 264 second-feet); minimum, 1.28 feet March 7 (discharge, 63 second-feet).

1913-1926: Maximum stage determined by levels from high-water mark in well, 6.5 feet May 15, 1917 (discharge estimated by extending rating curve, 1,620 second-feet); minimum stage recorded, 0.85 foot at 6 a. m. February 6, 1916 (discharge estimated from extension of rating curve, 22 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Above all important diversions.

REGULATION .- None.

Accuracy.—Stage-discharge relation permanent during year. Rating curve well defined. Operation of water-stage recorder satisfactory, except as indicated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

Cooperation.—Gage-height record and 9 discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	'Gage height	Dis- charge
Nov. 12	Feet 1. 49 1. 35 1. 53 1. 98	Secft. 87. 2 75. 0 95. 0 175	May 3 May 19 June 10 July 15	Feet 1, 87 1, 68 1, 58 1, 46	Secft. 144 113 91.0 77.0	Aug. 18 Sept. 8 Sept. 16	Feet 1. 40 1. 40 1. 37	Secft. 76. 3 72. 3 70. 1

Daily discharge, in second-feet, of Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91 88 90 91 95	85 87 88 88 88	71 77 75 75 77	81 82 83 85 83		70 70 70 70 72 75	68 68 76 88 109	155 153 151 149 188	98 95 95 95 94	82 82 82 82 82 85	87 90 90 88 87	75 75 75 75 75
6	103 100 100 98 97	87 87 86 86 86	80 81 82 80 85			69 66 66 68 72	177 207 210 202 198	182 168 159 151 143	94 94 94 94 98	85 85 85 85 86	87 88 91 88 91	75 75 74 74 73
11	97 95 97 94 93	86 86 86 85 85	90 93 94 91 91	80	70	71 69 82 94 91	195 195 195 198 202	137 133 133 128 122	95 94 93 93 93	85 84 84 83 82	85 83 80 77 77	72 71 71 72 72
16	90 91 91 90 90	83 83 82 81 80	87 87 90 81 82			95 104 114 98 97	205 207 205 200 198	122 121 115 112 112	91 90 90 91 90	83 82 83 83 83	77 75 75 76 77	72 73 73 73 73 73
21 22 23 24 25	87 83 80 80 79	7∌ 77 76 75 75	81 81 81 81 80		68 68 69	91 94 100 100 87	202 198 182 175 168	109 107 106 104 104	89 88 87 83 82	83 82 82 83 83	77 76 74 74 74	73 73 74 73 75
26	77 80 81 79 80 82	76 76 75 73 72	80 81 81 80 80 80	75	69 69 70	80 75 73 70 69 71	170 166 166 162 159	101 101 100 100 101 100	82 82 83 83 83	82 83 83 86 86 87	74 75 79 77 75 75	76 76 75 76 83

Note.—No gage-height record Nov. 26, Jan. 6 to Feb. 25, June 20-22, July 7, 8, 11-14, Aug. 31, Sept. 1-6, 13-15; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah, for the year ending September 30, 1926

	Discha	Run-off in			
Month	Maximum	Minimum	Mean	acre-feet	
October	103	77	89. 3	5, 49	
November	. 88	72	82.0	4,880	
December	. 94	71	82. 4	5,07	
January	. 85		78. 7	4,840	
February			69.8	3,88	
March	. 114	66	81.4	5,01	
April	210	68 [	172	10, 20	
May	188	100	128	7,87	
une	98	82	90.4	5, 38	
uly	87	82	83. 6	5, 140	
August	91	74	80. 6	4,96	
September	83	71	74.1	4,410	
The year	210	66	92. 7	67, 10	

#### WEST SIDE CANAL NEAR COLLINSTON, UTAH

LOCATION.—In NW. ¼ sec. 34, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 600 feet below penstock of Utah Power & Light Co.'s Wheelon plant, 1,000 feet northwest of gaging station on Bear River, and 4 miles north of Collinston, Box Elder County.

RECORDS AVAILABLE.—June 1, 1912, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage or by wading.

Channel and control.—Bed composed of earth and gravel. Banks steep and clean. Control not well defined; stage-discharge relation is probably affected by aquatic vegetation and slight silt deposit.

ICE.—Stage-discharge relation seriously affected at times by ice.

DIVERSIONS.—Water is taken out of canal about 600 feet above gage for power plant; and, if necessary, water can also be siphoned across river to Hammond Canal.

REGULATION.—Flow can be regulated at head gates and also at forebay of power plant.

COOPERATION.—Records furnished by Utah Power & Light Co.

Canal diverts water from west side of Bear River in SW. ¼ sec. 23, T. 13 N., R. 2 W., by means of low diversion dam. Part of water is used through Wheelon plant of Utah Power & Light Co. about 1½ miles below; the rest of that which passes gaging station is used for irrigation on west side of river. When cleaning or repairing Hammond Canal in canyon, water can be siphoned across the river at power plant from West Side Canal.

Discharge measurements of West Side Canal near Collinston, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 14	Feet 3. 50 2. 04 1. 04	Secft. 156 28 12. 2	May 8 May 18 June 11	Feet 3, 94 4, 62 6, 70	Secft. 198 283 589	July 16 Aug. 17 Sept. 18	Feet 5. 94 6. 35 6. 05	Secft. 466 518 477

a Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of West Side Canal near Collinston, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
12 34 5	316 334 337 333 333	202 212 168 148 144	78 81 82 81 79	32 30 32 30 30	30 30 30 30 30	16 16 16 16 16		0 104 163 210 219	566 571 568 574 577	596 599 599 595 598	542 570 572 5€6 570	556 556 556 547 541
6	333 310 304 306 310	146 146 146 140 142	81 81 81 81 81	30 30 30 30 30	30 30 30 5 8	16 16 16 16 16		198 198 193 198 193	571 574 568 590 590	598 598 422 319 357	571 547 547 546 524	546 508 490 484 482
11	307 277 260 264 275	143 143 146 151 150	78 81 78 78 78	30 30 30 30 30	19 19 19 16 16	16 16 16 16 16		173 173 210 237 233	585 585 598 596 599	364 378 414 415 444	494 494 498 499 498	481 480 481 481 482
16	275 258 259 260 248	156 159 157 156 151	78 78 58 58 53	30 30 30 30 30	19 19 16 16 18	16 16 16 6	0	235 253 276 285 348	598 599 598 599 603	468 504 547 546 547	514 528 562 560 560	484 484 482 484 478
21 22 23 24 25	260 255 253 265 243	151 146 146 151 151	58 53 56 56 58	30 30 30 30 30	19 18 16 16 16		,	384 418 454 463 482	603 595 593 604 604	546 546 544 540 536	558 560 560 560 560	480 456 409 408 408
26	240 254 244 243 255 193	153 153 156 156 117	58 53 58 58 58 58	30 30 30 30 30 30	16 16 16			520 514 510 544 541 560	601 601 595 588 593	538 526 542 538 536 540	558 558 560 554 552 554	409 421 438 439 355

Monthly discharge of West Side Canal near Collinston, Utah, for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December January. February March April May June June July August September	212 82 32 30 16 0 560 604 599	193 117 38 30 5 0 0 0 566 319 494 355	278 153 68. 6 30. 1 20. 1 9. 5 0 306 590 511 545 477	17, 100 9, 100 4, 220 1, 850 1, 120 584 0 18, 800 35, 100 31, 400 33, 500 28, 400
The year	604	0	250	181, 000

#### HAMMOND (EAST SIDE) CANAL NEAR COLLINSTON, UTAH

LOCATION.—In NW. ¼ sec. 34, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 400 feet below penstock of Utah Power & Light Co. and 4 miles north of Collinston, Box Elder County.

RECORDS AVAILABLE.—June 1, 1912, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage or by wading.

Channel and control.—Bed composed of earth and gravel. Control not well defined.

DIVERSIONS.—Water is taken from this canal 400 feet above gage for power plant.

REGULATION.—Flow can be regulated at head gates and by means of a wasteway at power-plant forebay; also affected by operation of plant.

Cooperation.—Records furnished by Utah Power & Light Co.

Canal diverts water on east side of Bear River in SW. ¼ sec. 23, T. 13 N., R. 2 W., at same diversion dam as West Side Canal. Part of water is used by Wheelon plant of Utah Power & Light Co., and remainder is either wasted into river or passes gaging station for use in irrigation.

Discharge measurements of Hammond (East Side) Canal near Collinston, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 14 May 8 May 18	Feet 1, 88 2, 74 3, 86	Secft. 13 37 90	June 11	Feet 4, 70 4, 66 4, 55	Secft. 137 134 129	Sept. 18	Feet 4, 32	Secft. 121

Daily discharge, in second-feet, of Hammond (East Side) Canal near Collinston, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1	16	13	5		29	118	141	144	123
2	53	12	5		42	119	145	144	122
3	71	12	5		64	116	145	142	124
4	71	12	5		73	134	145	144	122
5	70	12	5		59	143	145	144	122
6	67	12	5 5	[	51	136	141	141	122
7	48	12	5		34	136	140	137	118
8	47	12	5		41	122	84	136	114
9	47	12	5 2		40	139	63	136	113
10	47	12	2		50	138	83	130	111
11	47	` 12			60	136	124	121	110
12	41	12			69	141	124	121	109
13	32	12	<del>-</del>		90	141	123	121	108
14	31	13			92	146	124	118	108
15	32	13			73	140	128	132	110
16	32	13			72	142	142	131	109
17	32	5			74	143	137	131	110
18	32	5			86	144	140	136	113
19	32				98	142	142	136	112
20	32	5 5			104	143	147	134	110
21	32	5			102	142	147	132	110
22	31	5			101	128	146	132	99
23	32	5 5 5			101	128	146	132	86
24	30	5			102	139	147	131	85
25	28	5		23	106	143	144	129	84
26	28	5		39	115	147	144	130	83
27	25	5		35	118	144	142	125	82 82
28	24	5		36	120	139	141	124	82
29	22	5		37	121	142	141	123	82
30	21	5		43	118	142	145	122	82
31	17				116		145	124	

NOTE.-Canal dry Dec. 11 to Apr. 24.

# Monthly discharge of Hammond (East Side) Canal near Collinston, Utah, for the year ending September 30, 1926

** "	Discha	arge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
Oetober November December January February March April May June July August	5 0 0 43 121 147 147	16 5 0 0 0 0 0 0 29 116 63 118	37. 8 8. 9 1. 5 . 0 . 0 7. 1 81. 3 137 134 132	2, 320 550 92 0 0 422 5, 000 8, 150 8, 240 8, 120
September	124	0	106 54. 1	6, 310 39, 200

# WEBER RIVER BASIN

# WEBER RIVER NEAR OAKLEY, UTAH

LOCATION.—In NE. ¼ sec. 15, T. 1 S., R. 6 E., near mouth of canyon, 3 miles northeast of Oakley, Summit County. South Fork of Weber River enters 2 miles above station, and Beaver or Kamas Creek 6 miles downstream.

DRAINAGE AREA.—163 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 22, 1904, to September 30, 1926.

Gage.—Inclined staff on left bank a quarter of a mile above diversion dam of New Field & North Bench Irrigation Co.'s canal; read by John Franson. DISCHARGE MEASUREMENTS.—Made from cable just above dam or by wading.

Channel and control.—Bed composed of gravel and boulders. One channel at all stages; steep and rough but fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.3 feet at 9 a. m. May 21 (discharge, 1,610 second-feet); minimum discharge, probably less than 50 second-feet during ice-affected period.

1904–1926: Maximum discharge recorded, 4,000 second-feet July 6, 1907, and June 5–7, 1909; minimum stage, 4.0 feet for periods during February and March, 1908 (discharge, 46 second-feet).

ICE.—Stage-discharge relation seriously affected by ice every winter.

DIVERSIONS.—Above all important diversions.

REGULATION.—In 1925 a dam was built at the outlet to Fish Lake, in sec. 4, T. 1 S., R. 9 E., creating a small reservoir. About 800 acre-feet was stored during 1926 and released in July and August.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined below 1,200 second-feet; extended above. Gage read to quarter-tenths once a day except as stated in footnote to table of daily discharge. Daily discharge determined by applying daily gage height to rating table. Records good for October and July 1 to September 30; fair for rest of year.

Discharge measurements of Weber River near Oakley, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Jan. 9	Feet 44, 48 6. 20	Secft. 50. 0 78. 8	July 27 Sept. 22	Feet 4. 30 4. 11	Secft. 78. 8 51. 2

Stage-discharge relation affected by ice.

Daily discharge, in second feet, of Weber River near Oakley, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	90 87 95	87 95 87 87 84	72 72 72 79 79	50	55	65 65 65	95 104 104 104 104	560 560 610 670 920	850 790 850 990 920	161 156 156 151 151	104 99 109 104 95	58 58 58 58 58
6 7	208 156 133 113 113	82 79 79 79 79	79 78° 77 76	50	65	65 65 65 65 65	113 113 123 123 133	730 560 510 419 419	920 920 730 610 585	149 149 145 145 145	92 99 99 95 106	58° 58 55 55 55
11	113 113 113 113 109	79 77 76 76 76	70		65	68 69 69 72 72	133 133 156 181 208	419 419 378 378 419	560 510 463 419 378	133 133 123 117 113	95 89 84 81 79	52 55 55 55 55
16	108 104 104 104 104	76		50	65	79 79 87 87 87	238 270 304 340 378	463 610 790 920 1, 290	340 304 287 270 254	109 104 99 95 95	73 71 72 72 68	55 55 55 55 52
21 22 23 24 25	100 99 95 95 95	72			65	95 95 95 104 104	378 378 398 398 419	1, 610 1, 370 1, 370 1, 370 1, 370 850	238 223 223 208 194	92 87 82 79 79	68 68 66 68	52 52 52 55 55
26	92 92 91 91 87 87	72 72 72 65 65	60		65	95 95 95 95 95 95	441 463 525 560 560	850 850 850 920 920 850	181 168 168 164 161	79 79 123 123 117 113	62 62 62 61 60 58	55 55 55 55 72

NOTE.—Stage-discharge relation affected by ice Nov. 17-25 and Dec. 10 to Feb. 4; discharge estimated from temperature chart, 1 meter measurement, and comparison with Devils Slide record. No gage-height record Oct. 1-3, Nov. 12, 20, Dec. 7, 8, Feb. 5-9, 11-16, 18-24, 26-28, Mar. 1-3, 5, 6, June 6, and July 25; discharge interpolated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Weber River near Oakley, Utah, for the year ending September 30, 1926

	Discha	irge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	104 560 1,610 990 161 109	87 65 95 378 161 79 58 52	106 76. 4 68. 2 50 61. 8 80. 1 266 769 463 119 80. 2 55. 7	6, 520 4, 550 4, 190 3, 070 3, 430 4, \$50 15, 800 47, 360 27, 600 7, 320 4, 930 3, 310
The year	1,610		184	133, 000

c Estimated

#### WERER RIVER AT DEVILS SLIDE, UTAH

Location.—In SW. ¼ sec. 19, T. 4 N., R. 4 E., 300 feet north of hotel and 500 feet downstream from highway bridge at Devils Slide, Morgan County. Lost Creek enters from right a quarter of a mile upstream.

Drainage area.—1,090 square miles (measured on topographic and United States Forest Service maps).

RECORDS AVAILABLE.—February 1, 1905, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by A. E. Lucas.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

Channel and control.—Bed composed of gravel and sand; shifts occasionally.

One channel at all stages.

Extremes of discharge.—Maximum stage recorded during year, 4.35 feet at noon May 21 (discharge, 1,600 second-feet); minimum, 1.69 feet September 22 and 23 (discharge, 51 second-feet).

1905-1926: Maximum stage recorded, 8.0 feet at 6 p. m. May 22, 1920 (discharge, 6,000 second-feet); minimum discharge, 31 second-feet September 3, 1919.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—A number of canals divert water above this station for irrigation and domestic use.

REGULATION.—Diversions for irrigation only.

Accuracy.—Stage-discharge relation permanent. Rating curve fairly well defined. Gage read to hundredths once daily except February 28 and May 24. Daily discharge ascertained by applying daily gage height to rating table; discharge interpolated February 28 and May 24. Records good.

Discharge measurements of Weber River at Devils Slide, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date .	Gage height	Dis- charge
Nov. 24 June 9	Feet 2. 31 3. 08	Secft. 229 594	July 22 Sept. 21	Feet 1. 92 1. 70	Sec -ft. 109 52. 1

Daily discharge, in second-feet, of Weber River at Devils Slide, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	190 186	204 215	218 252	160 170	154 160	173 186	252 252	1, 010 966	966 852	160 123	68 71	57 60
3 4 5	180 173 186	292 256 240	237 160 197	183 193 109	163 167 154	204 225 256	308 407 517	950 1,050 1,170	875 852 852	141 135 138	126 123 101	66 71 71
6 7 8	275 279 256	218 229 229	233 233 200	173 193 207	180 180 180	186 173 193	653 717 571	1, 260 1, 110 1, 160	800 786 629	160 176 193	107 138 416	68 71 71
9	240 229	229 233	183 197	183 148	186 186	229 296	594 528	1, 100 1, 030 905	594 594	342 317	248 193	71
11 12 13	229 248 248	225 225 233	186 193 204	144 135 129	215 160 173	379 365 388	517 517 517	875 838 786	571 517 445	300 233 200	190 160 141	66 66 62
14 15	267 256	186 186	167 148	126 135	173 170	629 629	538 583	751 <b>6</b> 91	426 388	190 176	132 123	62 62 57
16 17 18	240 240 233	229 225 225	197 180 200	121 129 157	186 173 123	583 647 800	730 765 815	704 800 920	312 267 244	154 141 141	112 112 107	55 53 53 55
19 20	235 229	204 180	197 190	163 151	141 186	724 476	875 9 <b>2</b> 8	998 1, 130	215 186	129 126	107 112	<b>5</b> 5 53
21 22 23	225 225 229	193 200 204	148 200 200	121 160 129	141 135 167	431 421 426	950 1,010 966	1,600 1,530 1,550	173 157 144	121 107 123	107 107 101	53 51 51
24 25	225 222	229 211	197 <b>204</b>	138 144	148 151	476 365	905 920	1,370 1,190	123 109	98 96	96 83	51 53 53
26 27	222 218 218	211 207 207	180 173 141	132 138 129	148 160 166	312 312 275	998 1, 050 1, 030	966 890 845	107 112 129	91 91 88	75 73 75	55 57 57
29 30 31	218 211 200	204 207	112 121 107	115 160 112		200 252 292	1, 060 1, 070	890 935 1,070	132 215	91 80 75	66 62 62	55 101

Monthly discharge of Weber River at Devils Slide, Utah, for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August	292 252 207 215 800 1,070 1,600 966 342 416	173 180 107 112 123 173 252 691 107 75 62	227 218 186 148 165 371 718 1,030 426 153 122	14, 000 13, 000 11, 400 9, 100 9, 160 22, 800 42, 700 63, 300 9, 410 7, 500
September	1, 600	51	61. 5 320	3, 660 231, 000

## WEBER RIVER AT GATEWAY, UTAH

LOCATION.—In NW. ¼ SW. ¼ sec. 27, T. 5 N., R. 1 E., 300 feet below mouth of Strawberry Creek, 1,400 feet above Union Pacific Railroad bridge across Weber River, and 4,400 feet above section house at Gateway, Morgan County. East Canyon Creek enters from left 9 miles upstream, and Ogden River from right 16 miles downstream.

Drainage Area.—1,610 square miles (measured on Utah Water Storage Association map of 1919).

- RECORDS AVAILABLE.—June 22 to September 17, 1919, and July 26, 1920, to September 30, 1926. Records were obtained from October, 1889, to July, 1903, at a station 1 mile downstream known as Weber River near Uinta, Utah. Records at these stations are comparable, as there were no diversions and no important tributaries between the two points.
- GAGE.—Stevens continuous water-stage recorder on right bank; inspected by William Poll.
- DISCHARGE MEASUREMENTS.—From cable 1,000 feet above gage or by wading.

  Flow of Strawberry Creek is added when cable is used.
- Channel and control.—Bed composed of gravel and cobblestones. Right bank high. At high stages river overflows a bar opposite gage.
- EXTREMES OF DISCHARGE.—Maximum stage during year, 4.02 feet at 8 a.m. April 6 (discharge, 2,460 second-feet); minimum, -0.04 foot at 4 p.m. September 23 (discharge, 92 second-feet).
  - 1889–1903, 1919–1926: Maximum discharge recorded, 7,980 second-feet May 31, 1896; minimum, 65 second-feet August 7-13, 1898.
- Ice.—Affected by ice usually only for short periods.
- DIVERSIONS.—Numerous diversions from Weber River and tributaries for irrigation above Gateway. Davis & Weber Canal, 3 miles below station, diverts water for irrigation on bench lands south of Ogden. Entire low-water flow is diverted by several canals during irrigation season, so that river is practically dry at Plain City station.
- REGULATION.—Water stored by Davis & Weber Canal Co. on East Canyon Creek is released during the summer and passes gaging station.
- Accuracy.—Stage-discharge relation permanent; affected by ice part of December and January. Rating curve well defined. Operation of water-stage recorder satisfactory, except for periods stated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good, except estimated figures, which are fair.

Discharge measurements of Weber River at Gateway, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Jan. 14 May 17	Feet 0. 64 2. 47	Secft. 228 1,170	June 8 July 17	Feet 1. 70 . 75	Secft. 678 291	July 22 Sept. 21	Feet 0. 68 01	Secft. 262 96, 1

Daily discharge, in second-feet, of Weber River at Gateway, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	275	293	313	260	. 195	287	455	1, 640	1,020	280	207	118
2	285	327	439	268	198	306	439	1, 540	946	270	209	112
3	290	392	415	281	218	337	583	1, 460	868	260	218	111
5	297	373	320	277	229	362	736	1, 460	850	250	232	111
	303	344	317	210	253	400	910	1, 980	821	250	230	111
6	362	320	351	260	262	366	1,800	2,150	786	270	240	109
7	407	330	351	280	268	334	1,850	1,800	770	290	256	112
8	384	323	327	290	277	351	1,460	1,720	704	350	392	112
9	366	334	306	260	284	396	1, 390	1, 620	662	515	384	112
	351	340	306	240	290	464	1, 200	1, 380	641	400	284	112
	344	340	297	235	306	593	1, 160	1, 280	626	334	320	112
12 13 14	348 362 359	335 340 303	290 306 287	230 225 220	290 290 281	641 827 1, 170	1, 160 1, 160 1, 180	1,230 1,200 1,110	583 542 500	290 287 287	306 287 275	109 109 107 107
15	362	290	253	220 225	256	1, 170	1, 180	1,110	450	320	262	

Daily discharge, in second-feet, of Weber River at Gateway, Utah, for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
16 17	348	310	277	210	274	1, 220	1,390	1,090	400	306	259	103
18	$\frac{337}{337}$	325 320	274 281	220 240	256 221	1, 280 1, 450	1,560 1,620	1, 160 1, 230	360 390	290 284	244 238	102 100
19	337 334	310 290	287 277	245 230	229 265	1,090 922	1,730	1, 280 1, 400	420 450	280 275	235 232	100 98
21	330	280	256	210	262	838	1,900	1, 700	400	270	232	96
22	327	285	284	240	256	798	1,900	1,720	330	262	238	96
23 24	330 327	290 303	306 303	210 210	281 274	792 775	1, 780 1, 650	1,640 1,600	260 250	250 232	229 226	95 96
25	323	310	297	220	268	687	1,640	1, 430	240	232	215	98
26 27	323	303	268	210	262	607	1, 720	1,160	230	229	207	103
28	313 313	306 303	250 235	215 200	262 262	583 528	1,790 1,740	1,020 960	240 240	226 226	204 198	105 111
29 30	310 303	300 306	230 210	190 230		451 451	1,730 1,710	898 952	230 280	221 218	201 188	112 170
31	297		250	190		472		1,040		209	150	

Note.—No gage-height record Oct. 1-3, Nov. 10-13, 15-23, May 28, June 14-18, 20-26, 28-30, July 1-8, 19-21, Aug. 4, 5, 14, 31; stage-discharge relation affected by ice Dec. 27 to Jan. 1 and Jan. 4 to Feb. 1; discharge estimated by comparative hydrographs, using station at Devils Slide and Utah Power & Light Co.'s station at mouth of canyon.

Monthly discharge of Weber River at Gateway, Utah, for the year ending September 30, 1926

Month	Discha	arge in second	-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December Jeember Jenuary February March April May June July Ad August September	392 439 290 306 1,450 1,900 2,150 1,020	275 280 210 190 195 287 439 898 230 209 150 95	332 318 296 233 260 679 1,410 1,390 516 279 245 108	20, 400 18, 900 18, 200 14, 300 14, 400 41, 800 83, 900 85, 500 30, 700 17, 200 15, 100 6, 430
The year	2, 150	95	506	367, 000

## WEBER RIVER NEAR PLAIN CITY, UTAH

LOCATION.—In SE. ¼ sec. 5, T. 6 N., R. 2 W., at county highway bridge 1 mile south of Plain City, Weber County, on road to Ogden, 1 mile below mouth of Fourmile Creek, and 6 miles above point where Weber River empties into Great Salt Lake.

DRAINAGE AREA.—2,060 square miles (measured on topographic and United States Forest Service maps).

RECORDS AVAILABLE.—May 14, 1905, to September 30, 1926. Records obtained at this point in 1904 by State engineer.

GAGE.—Tape gage on upstream side of highway bridge; read by W. E. Davies.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading; conditions fair.

Channel and control.—Bed composed of sand and mud; shifting. One channel at all stages. Banks are high.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 14.32 feet April 7 (discharge, 3,410 second-feet); minimum discharge not recorded (less than 5 second-feet).

1904–1926: Maximum stage recorded, 19.1 feet June 6, 1909 (discharge, 7,580 second-feet); river practically dry during later part of several summers since 1915.

ICE.—Stage-discharge relation usually affected by ice.

DIVERSIONS.—In summer practically entire flow of Weber River above station is diverted for irrigation.

REGULATION.—Flow affected by diversions.

Accuracy.—Stage-discharge relation changed during high water in April.

Rating curves fairly well defined. Gage read to hundredths once a day.

Daily discharge ascertained by applying daily gage height to rating table.

Discharge estimated for extremely low periods when water did not reach gage.

Records fair.

Discharge measurements of Weber River near Plain City, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date ~	Gage height	Dis- charge
Dec. 5	Feet 5. 12 11. 65	Secft. 427 2, 290	June 7	Feet 4, 79 2, 14	Secft. 282 47

a Estimated.

Daily discharge, in second-feet, of Weber River near Plain City, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	308	317	357	335	323	450	876	1, 990	442	)	34	21
2	290	329	787	351	367	459	855	1,830	420		29	56
3	276	445	682	401	374	473	948	1,730	397		26	57
4	277	434	592	401	405	498	1, 260	1,430	372		26	57
5	285	427	434	395	412	539	1, 550	2, 610	372 327	5	28	59
6	292	399	416	390	410	546	2, 640	2, 650	295		23	29
7	329	370	432	382	401	498	3,410	2,790	281		25	20 22
8	374	374	450	353	484	477	2,840	2, 780	282	)	21	22
, 9	365	374	416	321	527	486	2, 540	2, 270	225	50	124 51	19
10	363	378	401,	317	496	469	2, 430	2,040	197	120	51	18
11	361	376	430	341	484	663	2, 190	1, 750	164	78	120	22
12	370	395	430	325	484	778	2, 200	1,640	163	49	28	22
T3	382	382	412	310	480	951	2, 130	1,550	152	35	26	lì .
14	386	365	423	287	491	1,070	2, 140	1, 410	145	27	22	] ]
15	380	386	405	302	486	1, 350	2, 160	1, 350	116	26	21	H
16	380	393	401	313	480	1,440	2, 310	1, 260	91	20	20	8
17	370	405	401	287	475	1,570	2,470	1, 250	84	16	h	11
18	363	403	405	300	434	1,690	2,570	1, 260	74	18	ll .	11
19	347	399	412	325	405	1, 560	2,600	1, 270	66	17		)
20	343	382	416	345	461	1, 340	2, 690	1, 220	)	n	8	18
21	339	382	416	370	401	1, 300	2, 830	1,310				42
22	339	388	393	317	401	1, 280	2,840	1, 240	ł	) 5	11	49
23	337	386	399	321	405	1, 160	2,670	1, 160	1	!!	IJ	50
24	339	386	401	313	430	1, 170	2, 560	1, 110			8	44
25	339	393	399	365	401	1, 170	2, 440	865	} 5	P	h	53
26	337	401	395	387	390	1, 030	2, 450	672	1	43		55
27	335	380	395	290	434	960	2,470	5 <b>5</b> 5	1	43 23	8	55 58
28	331	370	390	292	438	942	2,370	524	1	21	11	60
29	323	361	365	345		858	2, 280	444	1	26	11	66
30	321	357	341	337		804	2, 310	455	)	30	IJ	105
31	319	1	317	304		930	-,	496		34	19	1

Note.—Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Weber River near Plain City, Utah, for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
$\mathbf{Month}$	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	445 787 401 527 1, 690 3, 410 2, 790 442	276 317 317 287 323 450 855 444	339 385 429 333 435 933 2, 270 1, 450 145 22. 6 24. 4 35. 3	20, 800 22, 900 26, 400 20, 500 24, 200 57, 400 135, 000 89, 200 8, 630 1, 390 2, 100
The year	3,410		566	410, 000

## LOST CREEK AT DEVILS SLIDE, UTAH

LOCATION.—In SE. ¼ sec. 19, T. 4 N., R. 4 E., a quarter of a mile above confluence with Weber River and half a mile east of Devils Slide, Morgan County.

Drainage area.—228 square miles (measured on maps of United States Bureau of Reclamation).

RECORDS AVAILABLE.—April 1, 1921, to September 30, 1926, at present site. February 2 to December 31, 1905, at a site 150 feet above mouth of creek (published as "Lost Creek near Croyden, Utah").

GAGE.—Stevens continuous recorder on right bank; inspected by A. E. Lucas.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

Channel and control.—Bed consists of gravel; rocky at gage. Straight for 100 feet above and below gage. Most of water at this point, except during spring high water, is seepage and from springs. One channel at all stages. Some moss on rocks at control. Control shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.14 feet at 2 a.m. April 22 (discharge, 277 second-feet); minimum, 0.59 foot at 6 p.m. September 28 (discharge, 5.7 second-feet).

1905, 1921-1926: Maximum stage, 4.39 feet from 4 to 6 a. m. May 11, 1923 (discharge from extension of rating curve, 1,390 second-feet); minimum, that of September 28, 1926.

ICE.—Stage-discharge relation not often affected by ice.

DIVERSIONS.—Below all diversions.

REGULATION.—None.

Accuracy.—Stage-discharge relation permanent throughout year. Rating curve well defined. Water-stage recorder successfully operated except as indicated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

Discharge measurements of Lost Creek at Devils Slide, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 24 June 9	Feet 0. 93 . 90	Secft. 23. 5 20. 2	July 22 Sept. 21	Feet 0. 70 . 62	Secft. 10.0 6.4

Daily discharge, in second-feet, of Lost Creek at Devils Slide, Utah, for the year ending September 30, 1926

			<del></del>							<del></del>		
Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	Мау	June	July	Aug.	Sept.
12 23 45	10 10 10 11 11	19 20 23 23 23	23 26 27 23 24	19 19 20 20 15	15 14 14 14 14	23 26 28 31 33	43 39 46 51 52	154 130 112 92 101	23 23 22 19 19	14 14 14 14 14	10 10 10 10 10	10 10 10 10 10
6	12 12 12 12 12	23 22 22 23 23	24 24 23 23 23 23	21 18 16 15 16	14 17 17 19 20	28 27 30 32 32	84 103 99 103 110	101 103 107 105 95	19 19 20 20 19	15 14 13 13 13	10 10 10 10 11	10 10 10 10 9
11 12 13 14 15	12 12 13 14 16	23 23 23 22 21	23 23 23 21 21	17 14 14 13 12	20 19 23 22 19	. 36 36 48 62 66	121 123 123 130 142	88 84 81 66 52	19 17 16 16 15	14 14 14 14 13	11 10 10 9 10	9 8 8 8
16 17 18 19 20	17 19 19 19 20	22 23 23 22 21	23 21 22 22 22 22	11 14 14 14 14	23 22 19 20 23	66 70 74 62 58	167 197 203 218 239	48 30 24 21 19	15 15 14 14 14	12 12 13 12 12	10 10 10 10 10	7 8 8 7 7
21	20 20 20 21 21	22 22 23 24 24	20 22 21 21 20	12 12 12	18 18 20 19 19	56 58 61 67 62	261 264 245 227 227	19 19 18 19 19	14 16 14 15 14	12 10 10 10 10	10 10 10 10 10	7 7 7 7 6
26	21 21 21 20 19 17	24 23 23 23 23 23	19 20 18 17 14 14	13 14 14 14	19 19 20	55 55 49 39 44 46	233 230 215 197 178	20 20 20 20 20 22 22 22	14 16 14 14 14	10 10 10 10 10 10	10 10 11 10 10 10	6 6 6 7

Note.—No gage-height record Dec. 24-29; mean discharge estimated. Braced figure shows estimated mean discharge for period indicated.

Monthly discharge of Lost Creek at Devils Slide, Utah, for the year ending September 30, 1926

No. 12	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August	27 21 23 74 264 154 23	10 19 14 11 14 23 39 18 14	16. 0 22: 5 21. 5 14. 8 18. 6 47. 1 156 59. 1 16. 8 12. 3	984 1, 340 1, 320 910 1, 030 2, 900 9, 280 3, 630 1, 000 756 621
September	10	6	8. 1	482
The year	264	6	33. 5	24, 300

# SOUTH FORK OF OGDEN RIVER NEAR HUNTSVILLE, UTAH

LOCATION.—In SE. ¼ sec. 12, T. 6 N., R. 2 E., half a mile below mouth of Magpie Creek, 1 mile above heading of Huntsville Mountain Canal, and 5½ miles east of Huntsville, Weber County.

Drainage area.—Not measured.

RECORDS AVAILABLE. -- March 21, 1921, to September 30, 1926.

Gage.—Stevens continuous water-stage recorder on right bank; inspected by T. L. Pass.

DISCHARGE MEASUREMENTS.—Made by wading a quarter of a mile below gage.

Channel and control.—Bed of stream rocky and clean. One channel for all stages. Control of boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.85 feet at 11 p. m. April 21 (discharge, 508 second-feet); minimum, 0.35 foot at 8 p. m. August 30 (discharge, 30 second-feet).

1921–1926: Maximum stage, 5.4 feet at 10 p. m. May 10, 1923 (discharge, 1,450 second-feet); minimum discharge, 30 second-feet October 5, 1924, and August 30, 1926.

Ice.—Stage-discharge relation only occasionally affected by ice.

DIVERSIONS.—Above all except a few small ranch diversions.

REGULATIONS.—None.

Accuracy.—Stage-discharge relation changed September 17; affected by ice December 28 to January 30. Rating curves well defined. Water-stage recorder operated satisfactorily except for periods stated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimates fair.

Discharge measurements of South Fork of Ogden River near Huntsville, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 29 Dec. 7 Mar. 6 Apr. 14	Feet 0. 50 . 49 . 64 2. 14	Secft. 44. 5 44. 0 57. 5 324	June 7	Feet 0. 72 . 59 . 44 . 38	Secft. 68. 5 54. 3 37. 8 33. 2	Sept. 17 Sept. 28	Feet 0. 48 . 50	Secft. 36. 4 37. 0

Daily discharge, in second-feet, of South Fork of Ogden River near Huntsville, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 2 3 4 5	45 45 45 46 49	44 50 52 48 45	44 59 51 46 46	)	36 36 36 35 35	50 53 57 61 66	76 71 80 86 126	340 312 290 277 335	85 83 79 76 75	47 47 46 46 47	37 37 37 36 36	34 34 35 35 35 34
6	51 49 47 47 47	45 45 45 45 46	46 45 44 42 43	38	35 36 37 37 38	56 57 57 60 63	268 290 290 290 290 290	308 270 249 235 213	74 71 71 71 71	47 47 53 52 47	37 41 44 40 40	34 34 34 33 33
11	47 50 55 53 50	46 46 47 44 45	44 44 43 41 41		39 39 41 40 39	68 70 79 93 103	312 324 324 312 359	199 188 177 170 167	67 65 65 63 61	44 42 42 42 41	38 37 37 36 35	33 33 33 33 34
16	48 47 46 45 45	45 46 45 42 42	42 42 42 43 43	36	41 40 37 40 41	107 113 125 113 107	410 451 451 465 465	170 170 165 156 150	61 60 59 57 56	39 38 38 39 38	35 34 35 36 36	37 35 35 35 35 34
21	45 45 45 45 45	42 43 43 44 44	43 43 43 43 42	36	41 41 41 42 42	103 104 110 118 108	485 468 415 382 379	145 136 128 122 118	55 53 53 5 <b>2</b> 51	38 37 37 37 36	35 34 34 33 33	35 36 36 37 37
26	45 45 45 45 45 44	44 43 43 43 44	42 41 40	38	43 44 48	100 93 86 85 77 79	397 402 400 384 372	112 107 101 97 97 90	50 49 49 49 48	35 38 39 40 38 38	33 34 34 33 32 33	37 37 37 42 51

Note.—No gage-height record Dec. 28-31, Jan. 1-9, 11-17, 19-23, 25-30; stage-discharge relation affected by ice Jan. 10 and 24; discharge estimated by comparison with records of Utah Power & Light Co., at Pioneer Dam, downstream. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of South Fork of Ogden River near Huntsville, Utah, for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
. Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August	48 125 485 340 85 53	35 50 71 90 48 35 32	46. 8 44. 9 43. 5 37. 2 39. 3 84. 5 327 187 62. 6 41. 35. 9	2, 880 2, 670 2, 670 2, 290 2, 180 5, 200 19, 500 11, 500 3, 720 2, 570 2, 210
August September The year	485	33	35. 6 82. 2	2, 120 59, 500

## SOUTH FORK OF OGDEN RIVER AT ARTESIAN PARK, NEAR HUNTSVILLE, UTAH

LOCATION.—In NW. ¼ sec. 14, T. 6 N., R. 1 E., one-third mile above confluence with Middle Fork, one-third mile southeast of Artesian Park, and 2 miles west of Huntsville, Weber County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—June 8, 1925, to September 30, 1926, when station was discontinued.

Gage.—Au water-stage recorder on left bank March 24 to September 30, 1926. Staff gage at recorder site October 23, 1925, to March 23, 1926, at slightly different datum from the staff gage on opposite bank used prior to October 23, 1925.

DISCHARGE MEASUREMENTS.—Made by wading.

Channel and control.—Bed composed of small gravel. Left bank may be overflowed at extremely high stages. Control for low and medium stages is a light riffle just below gage; semipermanent. Channel control probable at higher stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period June 8, 1925, to September 30, 1926, 3.70 feet at noon April 6 (discharge, 607 second-feet); minimum uncertain.

ICE.—Stage-discharge relation not affected by ice during period of record.

DIVERSIONS.—Below all diversions for Huntsville district.

REGULATION.—None except that caused by irrigation diversions.

Accuracy.—Stage-discharge relation changed materially during January, March, and April. Rating curves for medium and high stages not well defined. Curves well defined between 15 and 50 second-feet. Water-stage recorder operated satisfactorily March 24 to May 17 and June 8 to September 17, 1926. Daily staff-gage readings obtained June 17 to October 15, 1925. Flow during winter estimated from current-meter measurements, occasional gage readings, and comparison with flow at gaging station about 8 miles upstream. Records June 17 to October 15, 1925, and June 8 to September 17, 1926, good; remainder of records fair.

COOPERATION.—Gage-height record and discharge measurements up to October 15, 1925, furnished by State engineer.

Discharge measurements of South Fork of Ogden River at Artesian Park, near Huntsville, Utah, during the years ending September 30, 1925 and 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
1925 June 8	Feet 1. 95 1. 05 . 94 . 78 77 . 78 . 87	Secft. 154 42. 4 28. 6 17. 4 13. 3 14. 4 18. 2	1926 Mar. 7. Mar. 24. Apr. 15. June 8. June 22. Aug. 9. Aug. 24.	Feet 0. 98 1. 36 2. 65 . 74 . 67 . 57 . 49	Secft. 46.7 146 380 26.5 20.8 13.5 12.1	1926 Sept. 1 Sept. 28	Feet 0. 48 . 53	Secft. 11.3 9.9

<sup>·</sup> Datum changed.

Day

1925

June

14 14 July

Aug.

37

Daily discharge, in second-feet, of South Fork of Ogden River at Artesian Park, near Huntsville, Utah, for the years ending September 30, 1925 and 1926

16 | 16

Day

1925

June

130

July

Sept.

18

Aug.

20

Sept.

1 2 3 4 5 5 5 5 5 6 6 7 7 8 8 9 9 10 11 12 13 13 14 15 5 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	18	30	37 46 43 48 45 40 36 31 35 33 33 32 29	37 42 42 42 35 28 26 26 26 25 25 22 22 22 22	16 16 13 16 16 14 14 15 16 16	17 18 19 20 21 22 23 24 25 26 27 28			130 102 92 84 82 72 69 67 63 59 49 45 37 34 37	27 27 26 26 27 30 35 33 30 28 28 27 25 26 24 27	20 19 22 20 19 20 19 18 18 18 18 17 16	186 155 15 16 16 15 16 13 16 13 14 14 14 13
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1925-26 1	14 17 13 13 13 13 13 13 13 14 14 14 14 15 16	16	22	23	25	50 48 47 48 50 55 60 70 85 100	116 112 119 133 180 433 464 412 380 368 356 348 356 366	303 248 210 252 356 318 281 243 216 196 181 165 156 130	35 28 28 30 32 31 30 29	17 16 16 17 17 17 18 22 24 23 22 22 22 22 20	15 16 14 15 14 13 12 12	10 10 10 10 10 10 10 10 10 10 10 10 10 9
15	15	19	23	24	30	115 125 135 155 145 140 135 140 140	389 433 479 475 517 512 552 538 468 424	126 122 118	30 28 27 25 25 23 22 22 23	20 18 18 18 18 17 17 17 16 16	12 12 12 11 11 11 11 10 10	9 9
25 26 27	14	20				139 133 128	416 424 419	80	22 21 19	16 16 16	10 10 10	10

Note.—No gage-height record June 9-16, Oct. 16-22, 24-28, Oct. 30 to Nov. 19, Nov. 21 to Dec. 6, and Dec. 8-31, 1925, and Jan. 1-6, Jan. 8 to Mar. 6, Mar. 8, 10-23, May 18 to June 7, July 31 to Aug. 8, and Sept. 16, 18-27, 29, and 30, 1926; discharge for these periods determined from comparison of hydrographs for this station and for station on South Fork of Ogden River near Huntsville.

394 361 334

118

18 17 17 16 16 16

10

10

12 15

Monthly discharge of South Fork of Ogden River at Artesian Park, near Huntsville Utah, for the years ending September 30, 1925 and 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
1925	,			
June 8-30	154	34	90.7	4, 140
July	51	24	32.8	2, 020
August		. 15	23. 9	1, 470
September	18	13	15. 1	898
The period				8, 530
1925–26				
October			14.3	879
November.			17.4	1,040
December			22.5	1, 380
January			23.8	1, 460
February			27. 3	1, 520
March			97. 9	6, 020
April		112	376	22, 400
May	356		153	9, 410
June		17	27.4	1,630
July	· 24	16	18.1	1, 110
August		10	12. 3	756
September	15		9. 9	589
The year	552		66. 5	48, 200

#### MIDDLE FORK OF OGDEN RIVER NEAR HUNTSVILLE, UTAH

LOCATION.—In SE. ¼ sec. 11, T. 6 N., R. 1 E., 75 feet downstream from State highway bridge, a quarter of a mile below confluence with Spring Creek, three-quarters of a mile east of Artesian Park, 1 mile above confluence with South Fork, and 1¾ miles northwest of Huntsville, Weber County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—June 22, 1925, to October 28, 1926, when station was discontinued. From June 22 to October 15, 1925, record obtained on Middle Fork above Spring Creek and flow of Spring Creek added.

Gage.—Stevens continuous water-stage recorder on left bank 75 feet below highway bridge; installed October 23, 1925.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

Channel and control.—Channel winding, banks low, and right bank overflowed at high stages. Control at low and medium stages is a light riffle just below gage; at higher stages winding channel probably becomes control.

Diversions.—Below all diversions except two or three small ditches for hay meadows below station.

REGULATION.—None except from diversions.

Accuracy.—Stage-discharge relation not permanent; changed during winter of 1925-26. Rating curves fairly well defined. Water-stage recorder operated only for periods after each visit by engineer. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated or interpolated for periods of missing gage heights. Records fair.

COOPERATION.—Daily discharge from June 22 to October 15, 1925, furnished by H. W. Browning, Ogden River water commissioner.

95449-30-4

Day

June

July

Aug.

Discharge measurements of Middle Fork of Ogden River near Huntsville, Utah, for the period October 1, 1925, to October 28, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
1925 Oct. 23 Oct. 29 Nov. 20	Feet 0. 92 . 90 . 67	Secft. 25. 4 24. 0 16. 2	1926 Mar. 6 Mar. 7 Mar. 24 Apr. 14 June 8	Feet 0. 89 . 75 2. 09 3. 51 . 99	Secft. 33. 8 29. 7 90. 3 214 35. 0	1926 June 22 Aug. 9 Sept. 17 Oct. 14	Feet 0. 76 . 67 . 16 . 40	Secft. 27. 0 27. 3 7. 5 13. 8

# Daily discharge, in second-feet, of Middle Fork of Ogden River near Huntsville, Utah, for the period June 22, 1925, to October 28, 1926

Day

Sept.

July

June

Sept.

Aug.

		_!												
193 12 23 45			  	41 38 35 34 59	19 17 19 19 18		32 29 31 29 30	16 17 18				26 26 25 25 25 25	28 27 29 28 25	27 30 29 34 33
6 7 8 9 10			  	44 40 37 29 28	22 20 21 23 24		30 31 30 30 29	23			36 35 35 36	23 24 24 24 22	25 26 26 24 23	54 38 38 37 37
12		-		26 25 24 24 25 25	25 26 29 27 25		30 30 32 32 32 33	27 28 29			40 38 33 36 36	22 22 18 19 18 18	24 48 32 27 28 29	36 36 36 35 32
Day	Oct.	Nov.	Dec.	Jan	. Fe	b.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1925-26 1 2 3 4 5	34 35 34 32 38		19 55 34 24 24	} 1	4	13	20	56 55 105 138 158	180 165 149 137 187	40	23 22 22 22 20 25	25	16 16 14 14 14	26 22 27 24 22
6 7 8 9 10	41 34 34 29 29	20	24 23 22 22 22	1	IJ	13	30 30 32 33 46	213	186 167 162 138 121	34 33 38	24 24 42 38 36	25 26		23 20 22 16 15
11 12 13 14 15	36 37 36 33 29		22 21 21 19 18				50 56 88 109 119	216 217	117	35 34 38 38 34	39 34 32 31 30	24 24 22 21 20		14 14 14 14 14
16	27	16	19 18	1	3	15	134 136 174 119 101	219 220 220 220 220 220		32 31 30 30 30	29 28 28	20 20 19 20 18	7 7 8	13 13 13 13 13 12
21 22 23 24 25	25 25 25 25	16 16 15 16 16	16				88 82 84 91 80	220 217 212 207 206	75	32 30 28 27 27	26	17 16 15 16 15	10 10 11	13 12 12 13 12
26	24 24 24 24 24 24 24	17 17 17 17 18					69 62 57 49 49 51	206 205 202 197 193		26 27 27 27 27 25		14 15 17 16 16	13 13 17 39	12 12 12 12
					<u> </u>							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

Note.—Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Middle Fork of Ogden River near Huntsville, Utah, for the period June 22, 1925, to October 28, 1926

	Discha	rge in second	l-feet	Run-off in
$\mathbf{Month}$	Maximum	Minimum	, Mean	acre-feet
June 22-30. 1925 July August September	40 59 48 54	35 18 17 27	36. 1 28. 1 25. 3 33. 0	645 1, 730 1, 560 1, 960
The period				5, 900
1925-26 October November December January February March April May June July August September	55 174 220 187 42	24 	29. 7 18. 7 20. 4 13. 2 14. 4 68. 4 194 104 33. 1 27. 9 20. 4 12. 5	1, 830 1, 110 1, 250 812 800 4, 210 11, 500 6, 400 1, 970 1, 720 1, 250
The year	220		46. 4	33, 600
1926 October 1–28	27	12	16. 0	891

## JORDAN RIVER BASIN

## JORDAN RIVER NEAR LEHI, UTAH

LOCATION.—In sec. 25, T. 5 S., R. 1 W., 800 feet below pump house at outlet of Utah Lake and 4 miles southwest of Lehi, Utah County.

Drainage area.—2,570 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 30 to December 31, 1904; July 22, 1913, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank 25 feet above bridge; operated by W. A. Knight.

DISCHARGE MEASUREMENTS.—Made from cable 400 feet above gage or by wading. Channel and control.—Bed composed of silt and hardpan. Banks clean and low; not subject to overflow. One channel at gage. Area slightly constricted below by highway bridge.

EXTREMES OF DISCHARGE.—Maximum mean daily stage during year, 5.86 feet June 28 (discharge, 845 second-feet); dry March 11-21.

1913–1926: Maximum mean daily stage reported, 7.78 feet June 8, 1923 (discharge, 1,370 second-feet); minimum stage at 6 p. m. December 15, 1915, when river was dry owing to strong north wind that blew water in lake away from outlet gates. River was dry also August 14–15 and September 2, 1919, October 16, 1919, to May 15, 1920, and March 10–21, 1926, because of dam placed in lake outlet.

Ice.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—None from Jordan River above station. In narrows about 6 miles north (downstream several miles by river) a number of large canals divert for irrigation in Salt Lake Valley and for use by smelters, etc., in vicinity of Garfield.

REGULATION.—During irrigation season, when natural flow from Utah Lake is inadequate for demands below, water is pumped from lake into Jordan River. A pumping plant, capacity about 1,500 second-feet, is at outlet of lake, 800 feet above gage; owned and operated by several canal companies interested in stream. This capacity of 1,500 second-feet includes four units of 200 second-feet installed during winter of 1919–20.

Accuracy.—Stage-discharge relation affected by backwater from storage at Narrows October 16 to November 13, November 21–23, February 27 and 28. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated from one discharge measurement, pump capacities, and weir records at Jordan Narrows when gage heights were affected by backwater. Records fair.

Cooperation.—Records of mean daily gage height furnished by W. A. Knight, water commissioner.

The following discharge measurement was made: November 21, 1925: Gage height, 1.81 feet; discharge, 78.7 second-feet.

Daily discharge, in second-feet, of Jordan River near Lehi, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	381 391 389 389 387		82 82 80 87 88	88 88 88 88 88	88 88 88 88 88	101 101 101 101 101	97 97 97 97 97	518 518 671 690 715	718 718 718 718 718 718	840. 840 815 835 835	727 703 713 730 708	286- 314 242 233- 296
6 7	383 379 337 375 385	100	88 88 88 88 88	88 88 88 88 88	88 88 88 88 88	101 101 101 101 77	97 97 97 97 97	710 696 639 528 601	756 756 744 744 751	838 838 732 840 840	708 703 664 690 671	341 373 242 219 330
11	385 385 268 209 124	101 104	88 88 88 75 84	88 88 88 88	88 88 88 88 88	0 0 0 0	97 97 97 97 159	616 532 526 522 522	751 751 763 788 785	840 835 838 838 830	634 676 625 664 671	395 459 365 324 385
16		108 110 111 110 93	146 117 117 110 113	88 88 88 88 88	88 88 88 88 88	0 0 0 0	243 252 252 252 250 248	520 614 628 623 616	785 820 810 812 713	820 785 763 751 761	650 671 667 431 561	480 425 334 330 417
21	!	80 80 81 82 81	110 110 110 110 110	88 88 88 88	88 88 88 88 88	0 5 10 10	248 247 245 245 243	614 614 612 594 572	812 828 812 815 818	763 763 739 754 739	634 530 509 520 526	307 326 235 103 166
26		82 82 82 82 82 82	99 88 88 88 88 88	88 88 88 88 88	88 101 101 <sub>.</sub>	18 50 97 97 97 97	461 520 524 522 528	667 690 687 683 706 718	835 835 845 842 840	737 727 730 715 718 715	520 403 452 515 484 183	301 343 417 463 423

Note.—Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Jordan River near Lehi, Utah, for the year ending September 30, 1926

••	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October			218	13, 400
November	111	80	95.0	5, 650
December	146	75	95. 9	5, 900
January	88	88 88	88. 0 88. 9	5, 410 4, 940
February	101 101	00	47. 6	2, 930
April		97	218	13, 000
May		518	618	38,000
June	845	713	780	46, 400
July.		715	788	48, 500
August	727	183	598	36, 800
September	480	103	329	19, 600
The year	845	0	332	241,000

## SALT CREEK NEAR NEPHI, UTAH

LOCATION.—In NW. ¼ sec. 1, T. 13 S., R. 1 E., 50 feet below tailrace of Nephi municipal power plant, 100 feet above intake of Nephi Plaster Co.'s canal, 2½ miles below mouth of South Fork, and 3½ miles east of Nephi, Juab County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 27, 1925, to September 30, 1926.

GAGE.—Vertical enameled staff on left bank; read by J. A. Kendall.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge just below gage.

Channel and control.—Bed of gravel; wooded banks; one channel at all stages. Control is a coarse-gravel bar.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 1.60 feet at 6 a. m. April 7 and 6 p. m. May 6 (discharge, 199 second-feet); minimum discharge, 6 second-feet, morning readings January 23–27.

1925-26: Maximum and minimum discharge occurred in 1926.

ICE.—Stage-discharge relation not affected.

**DIVERSIONS.**—A few small diversions above station.

REGULATION.—None.

Accuracy.—Stage-discharge relation not permanent; changed October 6, December 2, and May 20-22. Rating curves fairly well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records fair.

Discharge measurements of Salt Creek near Nephi, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Dec. 10 Mar. 12	Feet 0.38 .41	Secft. 9. 7 12, 2	May 10 June 8	Feet 1. 03 . 50	Secft. 70. 2 56. 1	June 14 Aug. 27	Feet 0.39 01	Secft. 41. 4 13. 1

Daily discharge, in second-feet, of Salt Creek near Nephi, Utah, for the year ending September 39, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
12345	12 12 12 12 12 34	12 14 14 12 11	14 19 10 8 10	9 9 9 9	9 9 9 9	11 12 12 13 10	22 22 24 28 34	97 95 95 110 160	70 71 74 72 65	31 31 29 28 26	16 23 22 20 18	14 15- 15- 15- 14
6	37 12 11 11 11	11 11 11 12 11	10 11 10 10 10	. 8 8 8 9	9 9 9 10 10	10 10 12 11 13	132 187 118 81 78	173 110 122 110 71	63 62 60 59 58	25 25 39 46 35	19 19 19 18 18	157 17 16 14 14
11 12 13 14 15	12 12 12 12 12 12	11 11 11 11 12	10 10 10 9 9	9 9 9	9 9 10 10 11	12 12 11 12 14	78 78 90 99 114	58 57 53 55 64	58 55 50 47 45	26 25 25 24 23	• 18 18 18 18 18	14: 14 14 14 14 14:
16 17 18 19 20	11 11 11 11 11	12 11 12 11 11	8 9 10 10 11	9 9 8 9	11 7 7 9 10	18 18 20 20 20	127 127 125 139 130	71 83 88 99 116	44 40 37 36 35	22 21 20 20 20	18 17 16 16 16	14: 14: 14: 14: 14:
21	11 11 11 11 11	11 11 12 12 12	9 9 9 9	8 8 8 7 7	11 10 10 10 10	22 26 30 31 32	130 132 127 127 112	122 127 130 108 93	32 32 32 31 28	19 19 18 18 18	16 15 14 15 15	14 - 14 - 14 15 - 16
26	11 11 11 11 12 12	12 12 12 12 12 12	9 9 9 9	7 7 8 8 8 8	10 10 10	30 29 27 26 22 22	114 112 110 103 101	83 72 71 68 68 67	30 31 32 32 32 32	18 19 18 18 17 16	15 15 15 15 14 14	16- 16- 18- 18-

Monthly discharge of Salt Creek near Nephi, Utah, for the year ending September 30, 1926

	Discha	-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet
October November	37 14	11 11	13. 0 11. 7	799 696
December January February	9 11	8 7 7	9. 9 8. 4 9. 5	609 516 528
March April May	187 173	10 22 53	18.3 100 93.4	1, 130 5, 950 5, 740
June July August	23	28 16 14	47. 1 23. 8 17. 0	2,800 1,460 1,050 887
September The year	187	7	30.6	22, 200

# PROVO RIVER AT FORKS, UTAH

LOCATION.—In sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks, Utah County. South Fork enters from left 400 feet downstream.

Drainage area.—600 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 17, 1911, to September 30, 1926. Records: have been obtained at various points below the mouth of South Fork since 1890.

Gage.—Vertical staff on right bank, 16 feet above steel bridge; read by J. F. Carter.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

Channel and control.—Bed composed of gravel and boulders; fairly permanent. Banks fairly high and not subject to overflow; one channel at all stages. Control is gravel riffle; shifting.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.39 feet at 3 p. m. May 21 (discharge, 1,250 second-feet); minimum discharge, 135 second-feet January 27 and 28.

1922–1926: Maximum stage recorded, 6.13 feet at 7 p. m. June 11, 1921 (discharge, 3,180 second-feet); minimum discharge, 122 second-feet September 18, 1924.

Ice.—Stage-discharge relation seldom affected by ice.

Diversions.—Station is below diversions for irrigation in Heber Valley and above those in vicinity of Provo.

REGULATION.—A number of small lakes at headwaters have been utilized as storage reservoirs, and flow is regulated to slight extent.

Accuracy.—Stage-discharge relation assumed to have changed slightly October 1 to November 12, May 6, and June 18 to July 24. Rating curves well defined between 150 and 1,200 second-feet. Gage read to hundredths daily. Daily discharge ascertained by applying daily gage height to rating table except October 1 to November 12 and June 18 to July 24, when shifting-control method was used. Records good.

Cooperation.—Nine discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Provo River at Forks, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 5	Feet 2. 38 2. 25 2. 37 2. 88 4. 00	Secft. 260 200 260 449 975	May 14	Feet 2. 65 4. 37 2. 91 2. 17 2. 15	Secft. 411 1, 240 499 218 202	July 15	Feet 2. 17 2. 03 2. 12 1. 99 1. 94	Secft. 195 174 201 170 156

Daily discharge, in second-feet, of Provo River at Forks, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Deć.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	228	211	253	211	215	232	275	540	548	206	177	159
2	228	246	290	239	211	239	297	463	504	203	177	159
3	222	335	305	232	215	253	327	451	465	203	209	159
5	208 215	290 260	253 253	232 232 225	205 205 205	256 246	414 455	463 675	474 453	203 200 200	203 197	159 159
6	286	246	242	215	211	239	558	980	394	200	209	159
7	250	242	239	218	215	239	575	780	370	200	222	164
8	239	250	260	211	208	246	584	840	322	200	248	164
9	236	253	253	211	218	253	523	800	299	203	222	159
10	232	250	256	205	267	282	455	639	307	209	216	157
11	239	246	253	205	239	286	463	461	277	222	- 209	159
12	256	242	253	191	253	293	447	470	255	212	206	162
13 14 15	25¢ 25¢ 256 250	256 250 232	260 253 225	185 178 198	260 225 242	339 422 472	439 443 447	465 394 378	235 222 219	200 194 191	203 203 197	155 150 145

Daily discharge, in second-feet, of Provo River at Forks, Utah, for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	250	246	246	185	218	463	472	427	219	191	191	141
17	250	239	246	185	215	523	514	453	216	189	194	141
18	242	239	253	211	211	558	540	761	212	191	194	141
19	246	242	253	218	191	455	593	800	216	194	186	143
20	246	232	246	205	208	418	€5 <b>7</b>	861	222	191	180	143
21	246	246	225	153	218	382	675	1, 190	219	189	180	141
22	246	246	253	205	222	374	666	1,090	222	175	177	141
23	246	239	250	159	232	378	684	986	219	175	172	141
24	239	260	250	185	211	390	647	923	222	172	167	141
25	228	253	246	191	222	343	638	856	212	177	164	141
26	228	253	242	147	228	305	629	667	203	177	164	143
27	228	253	242	135	218	282	634	566	203	180	162	147
28	228	253	225	135	225	267	624	530	206	197	162	152
29	228	250	225	205		260	580	495	203	189	162	152
30	222	250	211	211		275	558	530	203	183	162	222
31	222		185	205		290		621	<b>-</b>	177	159	

Monthly discharge of Provo River at Forks, Utah, for the year ending September 30, 1926

	Discha	-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	335 305 239 267 558 684 1,190 548	208 211 185 135 191 232 275 378 203 172 159 141	239 250 247 196 222 331 527 663 285 193 189 153	14, 700 14, 900 11, 200 12, 100 20, 400 31, 400 40, 800 17, 000 11, 600 9, 100
The year	1, 190	135	292	211,000

# SOUTH FORK OF PROVO RIVER AT FORKS, UTAH

LOCATION.—In sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks, Utah County, a quarter of a mile above confluence with Provo River, and 12 miles up Provo Canyon on highway and railroad from Provo to Heber.

Drainage area.—30 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 17, 1911, to September 30, 1926.

Gage.—Vertical staff nailed to cottonwood tree on right bank read by J. F. Carter and G. C. Purvance.

DISCHARGE MEASUREMENTS.—Made from foot log near gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel; shifting. One channel at all stages; banks low but rarely overflowed.

Extremes of discharge.—Maximum discharge recorded during year, 55 second-feet May 5; minimum, 18 second-feet during parts of June and July.

1911-1926: Maximum discharge, 123 second-feet May 27, 1922; minimum, 14 second-feet, April 17, 1925.

Ice.—Stage-discharge relation affected by ice.

DIVERSIONS.—Below all diversions.

REGULATION.—None except by irrigation.

ACCURACY.—Stage-discharge relation changed frequently. Standard rating curve fairly well defined. Gage read to hundredths once a day. Daily discharge ascertained by applying gage height to rating table, using shifting-control method. Records fair.

Cooperation.—Nine discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of South Fork of Provo River at Forks, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 5	Feet 1. 32 1. 30 1. 28 1. 32	Secft. 24. 3 28. 7 22. 3 25. 9	May 14	Feet 1. 31 1. 38 1. 24 1. 27	Secft. 26. 7 31. 9 18. 8 22. 4	Aug. 12 Sept. 8	Feet 1. 32 1. 27	Secft. 26, 2 21, 7

Daily discharge, in second-feet, of South Fork of Provo River at Forks, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	29	26	28	29	24	20	22	24	22	18	21	21
2	28	27	31	29	23	20	22	23	20	18	21	21
3	28	30	28	29	23	21	22	23	20	18	21	21
4	29	28	28	29	23	21	22	28	20	18	21	21
5	29	27	28	29	23	21	24	<b>5</b> 5	20	18	20	21
6	31	27	27	29	23	21	29	40	20	18	20	23 23 22 21 21
7	31	24	28	29	23	21	29	37	20	18	40	23
8	29	24	29	28	23	21	28	38	18	18	45	22
910	29	26	· 28	28	22	22	28	37	18	23	35	21
10[	29	27	28	29	24	21	28	38	18	22	31	21
11	34	27	28	28	23	21	28	31	18	21	29	21
12	34	26	28	27	23	21	28	29	18	22	28	21
13	34	28	29	27	23	22	28	29	18	22	33	21 22 22 22
14	31	26	28	27	23	22	27	28	18	22	31	22
15	30	26	28	27	23	22	28	26	18	22	31	22
16	29	28	28	27	21	23	28	26	18	22	31	22
17	29	26	28	27	21	23	28	26	18	22	24	22
18	29 27	28	28	27	21	23	28	25	18	22	22	22 22 22 22 22 22
19	27	28	29	26	22	22	28	24	18	22	21	22
18 19 20	27	28	28	26	22	23 23 22 22	28	27	18	22	20	22
21	27	28	28	26	22	23	28	31	18	22	20	22
22	27	26	28	26	22	23	28	35	18	22	20	22
23	27	26	28	26	20	23	28 28	35	18	22	20	22 22
24	26	27	28	26	20 20	23	28	35	18	22	22	22
25	26	28	28	26	21	23	27	35	18	22	22	22 22
26	26	28	28	25	20	22	27	31	19	27	20	22
27	26	28	28	25	20	22	26	29	19	25	20	22
28	26	28 27	28	24	20	22	26	26	19	23	21	22
28 29:	26	28	28 28	24	20	22	26	22	18	23	22	22
30	26	28 28	28	24		22	26	22	18	22	22	23
31	26	20	28	24		22		22	10	22	22	

Monthly discharge of South Fork of Provo River at Forks, Utah, for the year ending September 30, 1926

No. ab	Discha	rge in second	l-feet	Run-off in
· Month	Maximum	Minimum	Mean	acre-feet
October	29 24 23 29 55	26 24 27 24 20 20 20 22 22 22 22 22 22 22 22 22	28. 5 27. 0 28. 2 26. 9 22. 1 21. 8 26. 8 30. 2 18. 6 21. 3 25. 0 21. 8	1,750 1,610 1,730 1,650 1,230 1,340 1,590 1,800 1,110 1,310 1,540
The year	55	18	24. 9	18,000

## SEVIER LAKE BASIN

## SEVIER RIVER AT HATCH, UTAH

LOCATION.—In SE. ¼ sec. 28, T. 36 S., R. 5 W., at county bridge a quarter of a mile east of J. C. Barnhurst's house at Hatch, Garfield County, and 1½ miles below dam site of former Hatchtown Reservoir.

Drainage area.—260 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 3, 1911, to September 30, 1926; fragmentary.

Gage.—Stevens continuous water-stage recorder on left bank; inspected by J. C. Barnhurst.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Bed composed of sand and gravel.

Extremes of discharge.—Maximum stage during year, 2.98 feet at 2 a.m. May 23 (discharge, 643 second-feet); minimum not recorded.

1911-1926: Maximum stage, about 9 p. m. May 25, 1914, when Hatchtown Reservoir Dam failed (discharge not determined). Maximum stage recorded, 5.25 feet at 4 a. m. May 26, 1922 (discharge, 1,490 second-feet); minimum discharge, 10 second-feet on days in January, March, and April, 1912, while water was being stored at Hatchtown Reservoir.

Ice.—Stage-discharge relation slightly affected by ice.

DIVERSIONS.—Above all diversions, except Hatch Bench Canal and Panguitch Lake ditch, which divert a small quantity of water from Mammoth Creek.

REGULATION.—No regulation since Hatchtown Reservoir Dam failed May 25, 1914.

Accuracy.—Stage-discharge relation shifted slightly during year. Normal rating curve well defined. Water-stage recorder operated satisfactorily except as stated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Parallel shift used from October 25 to December 4. Records good; estimates fair.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River at Hatch, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 25 Jan. 31 Apr. 12 May 5	Feet 0. 80 . 62 . 81 2. 07	Secft. 76. 3 58. 7 88. 3 420	May 30. June 13. June 19. July 18.	Feet 1. 82 1. 28 1. 10 . 85	Secft. 348 183 131 86. 8	Aug. 11	Feet 0. 74 . 70 . 68	Secft. 75. 0 67. 7 63. 7

# Naily discharge, in second-feet, of Sevier River at Hatch, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
12345		70 78 73 68 71	61 64 58 55	60 62 65	57	70 73 78 76 74	60 58 60 58 64	339 358 349 368 435	352 325 286 264 255	107 114 114 110 109	87 89 86 82 81	68 68 70 70 71
6		70 68 68 68 68		65	57	70 64 62 64 64	70 84 112 91 81	454 427 380 352 315	249 235 223 215 210	109 105 99 99 99	92 87 92 91 82	70 76 74 73 71
11	73	68 70 68 70 68			58	64 62 61 65 68	81 84 87 84 91	295 295 292 305 332	205 197 184 174 169	96 94 94 92 92	74 73 71 89 91	71 71 68 67 67
16		70 71 74 71 71	55	65	60	64 64 65 64 64	103 120 135 133 118	416 467 497 529 572	162 157 150 141 146	92 92 92 94 96	84 79 78 76 76	67 65 65 65 65
21 22 23 24 25	76	71 71 71 70 71		62	60	62 62 65 67 64	120 130 152 176 200	589 591 584 557 518	135 130 124 120 122	98 98 98 94 94	76 76	65 65 65 65 65
26	74 74 73 71 70 70	68° 67 65 62 62		60 58 57	] 	61 60 58 57 57 58	250 300 350 350 350	478 444 401 389 377 365	118 114 110 122 116	96 94 103 96 89 87	72	68 65 65 74 73

Note.—No gage-height record Oct. 1-24, Dec. 5 to Jan. 2, Jan. 4-15, 17-28, 30, Feb. 1-6, 8-19, 21-28, Mar. 1, Apr. 25-30, and Aug. 23-31; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River at Hatch, Utah, for the year ending September 30, 1926

Discha	Run-off in		
Maximum	Minimum	Mean	acre-feet
78	69	72.9	4, 480 4, 130
61	57	55. 6 62. 9	3, 420 3, 870
78	57	58. 4 64. 7	3, 240 3, 980
591	292	422	8, 210 25, 900 10, 900
114	87	98. 2 79. 4	6, 040 4, 880
76	65	115	4, 070 83, 100
	78 61 78 350 591 352 114 92	Maximum   Minimum	78 62 69.4 61 55.6 78 62 69.4 78 57 62.9 78 57 64.7 350 58 138 591 292 422 352 110 184 114 87 98.2 92

# SEVIER RIVER NEAR CIRCLEVILLE, UTAH

LOCATION.—In sec. 29, T. 31 S., R. 4 W., 2½ miles above mouth of Pine Creek and 8 miles southwest of Circleville, Piute County.

Drainage area.—950 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 10 to September 19, 1912; April 23, 1914, to September 30, 1926.

Gage.—Stevens continuous water-stage recorder; inspected by J. A. Betenson.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

Channel and control.—One channel at all stages. Bed composed of sand; shifting.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.45 feet at 7 p. m. May 23 (discharge, 465 second-feet); minimum, 1.99 feet from 10 a. m. to 4 p. m. June 24 (discharge, 45 second-feet).

1912-1926: Maximum stage occurred in 1914 during flood resulting from failure of Hatchtown Dam (discharge not determined). Maximum discharge recorded. 1,600 second-feet August 6, 1916, and May 30, 1922; minimum, 45 second-feet June 19, 1924, and June 24, 1926.

ICE.—Stage-discharge relation affected by ice.

Diversions.—Above all diversions for Circle Valley; below several diversions for Hatchtown project and Panguitch Valley.

REGULATION.—Flow affected by diversions only.

Accuracy.—Stage-discharge relation changed slightly August 10-22. Rating curve well defined. Water-stage recorder operated satisfactorily, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph; shifting-control method used August 10-22. Records good; estimates fair.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River near Circleville, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 1	Feet 2. 90 2. 94 3. 91	Secft. 143 145 337	May 30	Feet 3.30 2.10 2.14	Secft. 222 55. 5 56. 5	July 19 Aug. 10 Sept. 24	Feet 2, 08 2, 52 2, 22	Secft. 50. 2 106 63. 8

Daily discharge, in second-feet, of Sevier River near Circleville, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Septs
1	127 127	134		127 133	340 340	205 199	54 53	62 65	64 64
3	127 128			124	344 336	190	59 . 67	62	59 60
5	333			111 116	340	175 175	86	60 76	60
6 7	195 197			147 153	384 362	150 140	81 81	85 95	62 66
8	197 193			189 176	330 300	121 114	75 64	160 240	65 62
10	197			158	265	108	60	103	61
11	187 176			147 152	235 200	98 94	59 58	93 93	64 65
13	. 176 164			165 162	176 182	87 81	56 54	92 93 ·	64
15	153			162	178	76	53	101	61

Daily discharge, in second-feet, of Sevier River near Circleville, Utah, for the year ending September 30, 1926—Continued

Da	ау О	et.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
16		148			169	215	73	56	100	60
17		145			182	257	72	54	97	60
18		140			186	280	64	53	87	61
19		138			203	312	60	52	82	62
20		134			195	347	55	50	80	62
21		132	[		176	409	52	50	78	61
22		134	1		176	409	49	48	76	60
23		134			193	432	48	48	1	64
24		132			213	435	46	48		66
25		128		117	239	396	47	49	i	71
26	]	128		117	266	358	47	53	70	76
27		127		111	289	325	46	60	1	75
28		127		iii	310	290	47	94		74
29		130		107	325	255	48	76	1	76
30		130		107	331	225	51	66	1	76 78
31		128		116	002	219	0.1	62	60	1

Note.—No record Nov. 2 to Mar. 24. No gage-height record May 8-12, 27-29, June 3-7, Aug. 6-9, 23-30, and Sept. 25; discharge estimated. Braced figure shows estimated mean discharge for period indicated.

Monthly discharge of Sevier River near Circleville, Utah, for the year ending September 30, 1926

Marth	Discha	l-feet	Run-off in	
Month	Maximum Minimum		Mean	acre-feet
October April May June July Angust September	197 331 435 205 94 240 78	127 111 176 46 48 60 59	156 189 306 93. 9 60. 6 87. 1 64. 9	9, 590 11, 200 18, 800 5, 590 3, 730 5, 360 3, 860

# SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—In NW. ¼ sec. 16, T. 30 S., R. 3 W., 1 mile west of Kingston, Piute County, and 2 miles above mouth of East Fork.

**DRAINAGE** AREA.—1,110 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 12, 1914, to September 30, 1926; also several miscellaneous measurements in 1911, published in Water-Supply Paper 310 as "South Fork near Junction, Utah."

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by W. S. Price.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

Channel and control.—One channel at all stages. Concrete control 10 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.01 feet at 3 a. m. October 6 (discharge, 377 second-feet); minimum, 0.71 foot at 5 p. m. July 1 (discharge, 11 second-feet).

1914-1926: Maximum stage recorded, 4.92 feet at 4 p. m. May 21, 1922 (discharge, 1,460 second feet); minimum discharge, 11 second-feet July 4, 1924, and July 1, 1926.

ICE.—Stage-discharge relation usually affected by ice.

DIVERSIONS.—Below all diversions from main stream above Piute Reservoir.

REGULATION.—Flow affected by diversions for irrigation.

Accuracy.—Stage-discharge relation permanent during year. Rating curve well defined. Operation of water-stage recorder satisfactory, except as stated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records fair.

COOPERATION.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River near Kingston, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 24	Feet 1, 35 1, 38 1, 51 1, 61	Secft. 131 139 176 214	May 29	Feet 1, 38 . 84 . 79 . 81	Secft. 134 25. 4 21. 2 22. 0	Aug. 2 Aug. 10 Sept. 18	Feet 0. 80 1. 08 . 80	Secft. 18. 6- 64. 8- 19. 6-

Daily discharge, in second-feet, of Sevier River near Kingston, Utah. for the year ending September 30, 1926

					1	1		Γ	i	i		<del></del>
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 2	62 53	112 121	146 155	137 137	125	168 191	149 162	219 215	95 98	16 17	20 20	23: 23:
3	41	123	149	135		191	162	219	81	19	20	23
4	38	112	140	135	137	194	149	215	62	19	19	23 23 24
5	152	110	143	138	134	191	143	212	49	23	20	24.
6	273	105	149	143	131	168	152	249	h	24	24	23:
7 8	149 149	105 108	152 135	135 129	129 129	158 149	177 184	195	37	21 23	29 40	23 23
9	152	110	129	123	137	155	215	193	25	21	130	21
10	158	110	126	123	135	162	194	143	25	21	72	20:
11	165	110	123	123	132	155	177	108	25	21	51	19.
12	152	112	126	)	126	152	174	81	26	21	44	19
13 14	143 140	105 105	126 121	l	135 129	155 174	188 181	68 57	25 23	20 18	46 41	200
15	155	100	123	110	136	188	181	55	20	19	39	23 21
16	140	121	137		143	181	184	60	24	19	47	23:
17	129	123	152	)	137	171	198	123	23	21	46	23
18	123	n I	140	105	121	152	205	140	25	20	36	21
19	115 115	!	126 115	)	123 143	137 137	215 212	162 194	24 20	20 23	30 29	23- 23-
		135										l
21	118		115	1	146	137	191	253	21	24	29	21
22 23	126 126		137 123	105	137 137	132 135	171 168	277 298	21 20	- 19	28 28	18 19
24	126	149	126	100	129	132	168	306	20	21	26	23
25	121	143	123		135	129	171	302	18	23	26	23
26	115	146	123		135	132	198	h	17	18	25	23.
27	115	140	123	J	137	129	223	220	17	18	24	25
28	115	143	123	110	149	123	230	J	18	21	23	26-
29	115 110	137 137	129 135	115		118 123	234 226	143 146	18 18	20 20	23 23	28- 33-
30	110	197	140	113		129	220	123	10	20	23	30-
				,		120		120				

Note.—No gage-height record Nov. 18-23, Jan. 5, 12-17, 19-27, 29-31, Feb. 1-3, 5, 6, 15, May 7-9, 26-28, June 6-8, Aug. 8, 9; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River near Kingston, Utah, for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November December January February March April May June July August September	155 143 149 194 234 306 98 24	38 100 .115 	126 123 133 117 133 153 186 181 32, 3 20, 4 34, 9 22, 7	7, 750 7, 320 8, 180 7, 190 7, 390 9, 410 11, 100 11, 250 1, 250 2, 150 1, 350	
The year	306	16	105	76, 100	

## PIUTE RESERVOIR NEAR MARYSVALE, UTAH

LOCATION.—In NW. ¼ sec. 3, T. 29 S., R. 3 W., at Piute Dam, 11 miles south of Marysvale, Piute County.

RECORDS AVAILABLE.—March 22, 1914, to September 30, 1926.

Gage.—Iron pins driven every foot into rock face at outlet gates; readings between foot marks are measured with a graduated scale.

COOPERATION.—Gage-height record furnished by Piute Reservoir & Irrigation Co.

Daily contents, in acre-feet, of Piute Reservoir near Marysvale, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,920	2, 940	9, 000	18, 300	28, 000	37, 400	40, 400	39, 500	38, 800	19, 300	4, 320	125
2		3, 180	9, 200	18, 700	28, 400	37, 800	40, 300	39, 500	38, 600	18, 400	4, 290	160
3		3, 420	9, 400	19, 000	28, 600	38, 100	40, 500	39, 500	38, 200	17, 600	4, 020	175
4		3, 600	9, 600	19, 400	29, 000	38, 400	40, 500	39, 500	37, 800	17, 000	3, 420	170
5		3, 780	9, 800	19, 700	29, 200	38, 800	40, 600	39, 400	37, 200	16, 600	3, 000	180
6	3,000	3, 900	10, 000	20, 000	29, 600	39, 100	40, 700	39, 300	36, 600	16, 100	2, 500	190
7		4, 020	10, 300	20, 300	30, 000	39, 500	40, 900	39, 300	36, 200	15, 800	2, 100	175
8		4, 200	10, 600	20, 500	30, 400	39, 600	41, 200	39, 300	35, 800	15, 200	1, 960	125
9		4, 320	10, 900	20, 000	30, 800	39, 800	41, 800	39, 300	35, 500	14, 800	1, 840	125
10		4, 470	11, 200	21, 300	31, 100	40, 100	42, 200	39, 300	25, 000	14, 500	1, 780	115
11	2, 080	4, 640	11, 600	21, 700	31, 400	40, 300	42, 400	39, 000	34, 500	14,000	1, 920	100
12	1, 900	4, 850	12, 000	21, 900	31, 800	40, 500	42, 400	38, 700	34, 200	13,600	2, 100	70
13	1, 720	4, 990	12, 400	22, 200	32, 000	40, 600	42, 300	38, 400	34, 000	13,200	2, 040	40
14	1, 720	5, 160	12, 600	22, 600	32, 500	40, 600	42, 100	38, 100	33, 400	12,600	1, 920	10
15	1, 800	5, 360	12, 800	23, 000	32, 800	40, 700	42, 000	37, 800	32, 400	12,200	1, 840	0
16	2,000	5, 560	13, 000	23, 400	33, 200	40, 900	41, 800	37, 400	32, 100	11, 700	1,720	360
17		5, 760	13, 400	23, 800	33, 600	41, 000	41, 600	37, 200	31, 400	11, 300	1,620	500
18		5, 920	13, 700	24, 200	34, 100	40, 900	41, 300	37, 100	30, 800	10, 900	1,500	640
19		6, 120	14, 000	24, 400	34, 500	41, 000	41, 200	37, 000	30, 200	10, 500	1,340	750
20		6, 320	14, 400	24, 800	35, 000	41, 000	41, 100	37, 100	29, 400	10, 100	1,250	1,020
21	2,060	6, 520	14, 700	24, 900	35, 400	41, 000	40, 700	37, 600	28, 600	9, 700	1, 040	1, 190
22	2,080	6, 760	15, 100	25, 100	35, 700	41, 100	40, 600	38, 100	28, 000	9, 200	750	1, 370
23	2,100	7, 000	15, 500	25, 400	36, 000	40, 900	40, 100	38, 600	27, 000	8, 600	600	1, 640
24	2,140	7, 240	15, 900	25, 600	36, 200	40, 900	39, 700	39, 000	26, 200	7, 960	540	1, 860
25	2,200	7, 520	16, 300	26, 000	36, 400	40, 800	39, 400	39, 500	25, 500	7, 360	340	2, 040
26 27 28 29 30 31	2, 300 2, 400 2, 480 2, 550 2, 620 2, 700	7, 780 8, 000 8, 280 8, 500 8, 750	16, 700 16, 900 17, 100 17, 400 17, 700 18, 000	26, 200 26, 600 26, 800 27, 200 27, 400 27, 800	36, 600 36, 700 37, 100	40, 700 40, 700 40, 600 40, 500 40, 300 40, 300	39, 200 39, 300 39, 400 39, 500 39, 500	39, 600 39, 600 39, 600 39, 500 39, 300 39, 100	24, 400 23, 600 22, 500 21, 400 20, 400	6, 720 5, 920 5, 280 4, 710 4, 500 4, 410	200 . 155 . 160 . 135 . 130 . 100	2, 100 1, 980 1, 920 1, 880 1, 860

# SEVIER RIVER BELOW PIUTE DAM, NEAR MARYSVALE, UTAH

LOCATION.—In sec. 34, T. 28 S., R. 3 W., 700 yards below dam of Piute Reservoir and 11 miles south of Marysvale, Piute County.

Drainage area.—2,440 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 17 to August 31, 1911; May 1, 1912, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by M. C. Jensen.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

Channel and control.—Bed composed of sand and gravel. One channel at all stages. Control is riffle of heavy gravel and rocks immediately below gage; shifts occasionally.

EXTREMES OF DISCHARGE.—1911-1926: Maximum stage, 4.45 feet between 6 p.m. May 23 and 8 a.m. May 24, 1922 (discharge, 2,600 second-feet); practically no flow when reservoir gates are closed.

ICE.—Stage-discharge relation slightly affected by ice.

DIVERSIONS.—No water diverted between station and Piute Reservoir.

REGULATION.—Flow regulated by operation of gates at dam.

Accuracy.—Stage-discharge relation changed slightly several times during the year when sediment was deposited in channel, owing to sudden opening of gates at reservoir. Normal rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method from June 18 to August 10 and September 26-30. Records good.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River below Piute Dam, near Marysvale, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date .	Gage height	Dis- charge
Apr. 10	Feet 0. 90 1. 40 1. 94 2. 19 2. 07	Secft. 153 311 517 651 535	July 20	Feet 2. 06 1. 28 1. 78 1. 67 1. 67	Secft. 528 250 463 434 433	Aug. 13	Feet 1. 47 . 41 . 07	Secft. 338 62.0 26.4

Daily discharge, in second-feet, of Sevier River below Piute Dam, near Marysvale, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	331	129	121	)	)	35	162	268	327	658	264	229
2	417	127	121	1	1	34	162	264	347	658	251	238
3	430	127	121	i i		34	159	251	377	652	460	241
4	417	127	121		1	34	108	289	377	652	460	241
5	417	127	113	} 2		34	80	307	386	652	450	245
6	408	125	89	-		44	72	307	412	658	435	241
7	390	125	88	1	1	64	59	300	368	652	422	235
8	386	125	75		1	88	48	245	311	600	412	229
9	373	123	75	)		92	51	248	296	534	399	226
10	360	121	75	19		94	131	241	293	534	282	220
11	351	121	63	31	1	111	205	232	296	534	229	211
12	347	123	58	10	2	167	226	251	307	534	258	205
13	293	125	58	1	I .	170	293	268	364	534	335	191
14	220	125	58	1 1		167	296	261	377	534	331	186
15	214	125	54	} 2	1	197	307	254	377	534	335	162
16	197	125	.34	1 -		175	327	223	377	534	. 339	127
17	197	125	33			145	327	220	377	534	339	131
18	197	123	33	15	1	140	368	226	394	534	335	122
19	194	123	21	26		149	368	197	475	534	335	69
19	194	123	) <sup>-</sup>	11		157	373	125	480	529	331	70
21	194	125		ı l	1 1	164	381	76	490	529	335	
22	197	127	1 1	1 !	1 1	164	360	78	540	534	319	33
23	183	127	1 1	1 1	j l	164	381	152	570	534	300	26
24	177	127	i i	1 1	′ 5	164	377	180	588	529	282	26
25	177	125	l 2	1	26	164	364	282	600	518	271	55 33 26 26 26 28
26	180	123	] [	2	34	164	319	. 335	626	490	251	157
27	175	123	1	1	34	164	315	335	632	470	238	152
28	170	123	1	1 .	34	170	323	343	652	465	235	145
29	164	123				188	303	356	665	440	229	145
30	164	121		1		188	264	351	658	285	223	145
31	152			)		175		356		271	220	

Note.—Reservoir gates closed, seepage only, Dec. 20 to Jan. 9, Jan. 13-17, and Jan. 21 to Feb. 23. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River below Piute Dam, near Marysvale, Utah, for the year ending September 30, 1926

··	Discha	rge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November	430 129	152 121	267 125	16, 400 7, 440	
DecemberJanuary	31	9	46.3 5.2 6.4	2, 850 320 355	
February March April	197 381	(*) 34 48	129 250 252	7, 930 14, 900	
May June July	665	76 293 271	252 445 537	15, 500 26, 500 33, 000	
August September	460	220 26	320 158	19, 700 9, 400	
The year	665	(a)	212	154, 000	

Reservoir gates closed; seepage water only.

## SEVIER RIVER AT SEVIER, UTAH

LOCATION.—In E. ½ sec. 32, T. 25 S., R. 4 W., at Sevier, Sevier County, 100 yards above railroad bridge on Y spur of Denver & Rio Grande Western Railroad. Clear Creek enters Sevier River immediately above this station. Prior to November 15, 1916, Clear Creek entered 45 yards below the station.

Drainage area.—2,850 square miles, including Clear Creek, which was diverted into Sevier River above this station November 15, 1916; 2,700 square miles exclusive of Clear Creek. Areas measured on topographic maps.

RECORDS AVAILABLE.—May 20, 1911, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by R. W. Levie and P. Carter.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

Channel and control.—Channel straight; composed of gravel. Banks seldom overflowed. Control composed of coarse gravel about 75 feet below gage; somewhat shifting.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.71 feet at noon July 6 (discharge, 742 second-feet); minimum not recorded.

1911-1926: Maximum discharge (estimated), 2,800 second-feet during last week in May, 1922; minimum stage recorded, 1.15 feet at 2 p.m. November 27, 1919 (discharge, 10 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—A few small ditches divert between station and Piute Dam.

REGULATION.—Flow largely controlled by operation of gates at Piute Dam, about 27 miles upstream.

Accuracy.—Stage-discharge relation changed during high water in July. Rating curves well defined. Water-stage recorder operated successfully except for short periods during winter. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimated periods fair.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River at Sevier, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 27 Feb.5	Feet 3. 46 2. 83 3. 11 4. 08	Secft. 209 39. 0 94. 4 409	May 28	Feet 4. 31 4. 48 4. 29 4. 49	Secft. 536 600 484 606	July 4 Sept. 28	Feet 4, 67 3, 32	Secft. 711 172

Daily discharge, in second-feet, of Sevier River at Sevier, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 2 3 4	291 384 434 434	180 163 159 159	140 143 137 119	} 42 40	36	68 70 68 64	212 205 205 201	427 423 415 427	611 599 623 617	735 729 722 716	310 294 354 450	246 258 266 272
5	442	159	125	] •	38	68	140	500	599	722	472	272
6	431 427 412 398	159 159 159 159	128 114 109 98	40	38 38 36 36	64, 70 86 98	122 122 114 98	505 477 434 387	617 605 570 482	735 735 729 678	442 434 434 415	275 269 266 256
10	387	152	96	60	36	106	101	370	459	660	398	256
11 12 13 14	387 364 380 304	146 144 142 141	96 88 86 82	60 40	38 36 40 38	106 119 159 205	222 263 304 341	360 354 364 370	442 431 434 482	648 635 611 605	272 266 310 360	253 246 233 215
15	272	140	78	36	38	222	350	377	482	599	357	212
16	266 246 239 239 239	140 140 140 140 140	74 70 70 60 60	36 34 33 50	40 35 35 42 43	256 219 201 201 212	380 401 415 446 442	390 398 431 454 486	472 459 454 500 565	588 594 582 576 576	360 360 360 354 350	173 143 143 128 93
21	239 239 239 233 226	140 140 140 141 142	60	40 33 33 33 )	42 36 38 38	215 215 215 215 215 212	450 442 450 468 491	415 412 431 427 446	570 599 635 660 660	570 565 565 565 553	344 350 332 313 297	77 64 50 47 43
26	208 205 205 205 205 205 205	143 143 140 137 140	48 46 44	35	65	208 205 201 215 229 233	486 459 477 486 463	521 495 495 521 526 553	678 691 710 722 735	537 505 491 495 419 319	288 269 259 256 250 243	68 180 176 169 169

Note.—No gage-height record Nov. 12-14, 16-21, 23-25, Dec. 15, 16, 18, 19, 22-28, 30, 31, Jan. 1-3, 5-9, 11-16, 18, 20-23, 25-30, Feb. 1-4, 25-28; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River at Sevier, Utah, for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October	442	205	. 303	18, 60
November		137	148	8, 81
December			82. 2	5, 05
January			38.9	2, 39
February			41.6	2,31
March	256	64	162	9, 960
April	491	98	325	19, 30
May	553	354	438	26, 90
June	735	431	572	34, 000
July		319	605	37, 20
August	472	243	340	20, 90
September	275	43	184	10, 900
The year	735		272	196, 00

# SEVIER RIVER NEAR VERMILION, UTAH

LOCATION.—In NE. ¼ sec. 19, T. 22 S., R. 1 W., at highway bridge half a mile below Rockyford Dam, 2 miles below Vermilion, Sevier County, and 4 miles above mouth of Lost Creek.

Drainage area.—3,340 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 15 to September 23, 1912; July 31, 1914, to September 30, 1926.

Gage.—Stevens continuous water-stage recorder on right bank; inspected by Orson Wilkinson.

DISCHARGE MEASUREMENTS.—Made by wading or from highway bridge.

CHANNEL AND CONTROL.—Fairly permanent.

EXTREMES OF DISCHARGE.—1914-1926: Maximum stage, about 8.1 feet May 30, 1922 (discharge, 2,400 second-feet); minimum discharge, about 1 second-foot July 16-18, 1923 (seepage only).

ICE.—Stage-discharge relation seldom affected by ice.

Diversions.—Entire flow usually diverted above station during low-water season.

Flow past station at such times represents seapage and return flow from canals.

Flow past station at such times represents seepage and return flow from canals.

Regulation.—Flow regulated to large extent by dams and reservoirs above.

Accuracy.—Slight changes in stage-discharge relation for low stages. Normal rating curve well defined. Water-stage recorder operated satisfactorily for intermittent periods. (See footnote to table of daily discharge.) Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated for periods of missing gage heights by comparison with other Sevier River and canal stations. Records of daily discharge good; estimates fair.

COOPERATION.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River near Vermilion, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 15 Apr. 8 May 3	Feet 3. 88 3. 74 3. 28	Secft. 63. 6 42. 0 9. 5	June 11 June 23 July 5	Feet 3. 56 3. 70 39. 7	Secft. 25. 2 34. 6 62. 3	Aug. 1	Feet 4. 26 4. 00	Secft. 100 62. 3

Daily discharge, in second-feet, of Sevier River near Vermilion, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	32 32	66 70	109 109	104 102	1	62	15 15	10 10	9	27 36	102 102	10 8
3	32	70	109	102	} 96	68	16	10	17	45	100	15
<b>4</b>	32 35	71 71	111 111	100 100	1	74	16 17	10 16	27 25	52 59	98 98	15 28
6	40	73	113	100	98	74	24	33	26	65	94	43
7	43	74	115	100	98	71	31	48	25	65	83	42
8	44	76	115	100	98	76	42	62	28	70	54	40
9	55	66	113	100	)	81	66	55	44	73	66	39
10	62	89	120	98	98	83	180	59	51	76	73	38
11	62	111	127	98	88	81	92	65	59	81	83	37
12	63	160	129	l)		102	57	47	63	76	89	30
13	63	188	129		ا ا	113	55	10	63	60	90	32
14	63	180	129	98	98	104	54	9	65	51	85	32
	63	160	127	1		104	32	27	63	55	76	45
16	63	117	115	J		102	10	36	57	70	70	66
17	63	117	111	98		100	10	27	62	71	46	)
18	63	117	109	98		98	10	17	59	56	39	<b>58</b>
19	63	117	107	98		92	10	14	54	42	45	)
	63	129	102			81	1	13	38	42	51	50
21	63	117	102	l	15	60	10	12	45	56	51	1
22	63	115	100			47	10	12	45	· 78	48	
23	63	115	102	ı		47		12	36	74	48 47 38 35	} 51
24	63 63	115	102	96		46	, ,	11	31	73	38	
		113	-102	06			10	10	25	80		J
26	63	113	102	1			)	10	32	81	29	52
27	63	109	102					10	33	82	21	54
28	65	107	102		<b></b>		} 10	9	32	83	18	55
29	65	107	102			15	1	9	21	87	17	56
30	65	109	102	, ,		15	) .	8	21	89	17	. 57
61	66		102	94		15		8		94	14	

Note.—No gage-height record Oct. 1–3, Jan. 12–16, 20–30, Feb. 1–5, 9–13, Mar. 2–4, Apr. 16–18, 20–24, 26–30, May 1, 2, July 26, 27, Sept. 17–19, 21–25, 28–30; discharge estimated. Braced figures show estimated mean discharge for periods indicated. No record Feb. 15–20, 22–28, and Mar. 25–28.

Monthly discharge of Sevier River near Vermilion, Utah, for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	129 104 98 113 180 65 65 94	32 66 100 94 15 	56. 1 108 111 98. 0 • 76. 7 • 66. 0 28. 7 22. 2 38. 8 66. 1 60. 6 42. 4	3, 450 6, 430 6, 630 6, 030 4, 260 4, 060 1, 710 1, 360 2, 310 4, 060 3, 730 2, 520
The year	188	8	64. 5	46, 700

<sup>·</sup> Estimated.

# SEVIER RIVER BELOW SAN PITCH RIVER, NEAR GUNNISON, UTAH

LOCATION.—In NE. ¼ sec. 14, T. 19 S., R. 1 W., 1,000 feet below mouth of San Pitch River and 3 miles west of Gunnison, Sanpete County.

DRAINAGE AREA.—4,880 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 1, 1917, to September 30, 1926. Records of Sevier River near Gunnison, above confluence with San Pitch River, were obtained June 29, 1900, to September 30, 1917. Combined flow of Sevier River near Gunnison with flow of San Pitch River near Gunnison is comparable with flow at present station.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by L. D. and Ruben Christensen.

DISCHARGE MEASUREMENTS.—Made from cable 250 feet above gage or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Bed composed of fine sand and gravel; shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.56 feet at 11.30 p.m. September 11 (discharge, 562 second-feet); minimum, 1.15 feet September 6 (discharge, 46 second-feet).

1918-1926: Maximum stage, 5.32 feet at 2 a. m. June 1, 1922 (discharge, 2,620 second-feet); minimum discharge, that of September 6, 1926.

ICE.—Stage-discharge relation seldom affected by ice.

Diversions.—During irrigation season greater part of flow is diverted above station.

REGULATION.—Flow at gage is affected by operation of reservoirs and numerous irrigation diversions above.

Accuracy.—Stage-discharge relation permanent during year. Rating curve well defined. Operation of water-stage recorder satisfactory except as indicated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River below San Pitch River, near Gunnison, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 16	Feet 1. 81 1. 90 1. 54 1. 58 1. 47	Secft. 206 256 134 138 108	May 9	Feet 1. 68 1. 40 1. 30 1. 38 1. 18	Secft. 179 89. 3 73. 1 87. 4 52. 0	July 17 July 31 Sept. 2 Sept. 16	Feet 1. 24 1. 40 1. 26 1. 66	Secft. 67. 3 100 67. 0 166

Daily discharge, in second-feet, of Sevier River below San Pitch River, near Gunnison, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	95	196	234	253	230	218	139	133	72	52	125	. 64
2	98	200	237	261	230	222	137	119	70	52	127	66
3	100	200	237	261	230	222	136	125	68	55	130	66
4	100	200	230	257	230	234	136	150	63	68	109	66
5	117	196	234	241	237	230	133	193	59	100	117	64
6	196	196	261	237	237	214	141	237	57	112	117	48 52 53 57 63
7	190	200	249	245	249	186	133	186	57	<b>13</b> 3	117	52
8	186	207	245	241	249	179	140	190	59	139	245	53
9	193	210	245	237	249	186	150	182	63	153	182	57
10	207	193	245	)	245	193	176	160	70	160	166	63
11	210	207	245		245	200	234	147	82	153	144	114
12	207	218	249	233	241	196	182	147	89	102	133	230
13	210	261	266	ll .	245	218	150	136	93	84	122	130
14	226	257	266	<b>!</b>	241	237	144	100	95	76	119	119
15	218	241	245	Į)	249	237	141	89	102	72	100	141
16	214	234	241	230	266	253	136	107	100	70	97	169
17	210	234	245	226	261	266	122	136	91	64	95	176
18	207	234	253	222	237	253	117	157	100	72	89	160
19	204	234	257	222	237	237	114	163	105	70	72	157
20	200	234	257	218	253	234	112	179	95	64	72	119
21	196	234	249	218	207	226	125	179	91	66	78	102
22	196	230	257	214	179	214	119	200	84	68	74	100
23	200	234	261	218	196	196	125	176	82	78	76	100
24	196	241	253	218	200	200	119	160	76	107	89	102
25	196	249	253	222	214	193	105	133	74	114	84	109
26	196	237	253	226	207	179	107	109	78	117	78	119
27	196	237	249	226	210	173	119	98	76	125	76	117
28	196	234	245	226	214	166	114	82	72	127	70	117
29	196	230	245	226		125	125	70	64	133	68	112
30	196	230	245	230		130	130	70	50	105	68	107
31	196		245	230		133		72		102	66	

Note.—No gage-height record Oct. 2, Jan. 10-15, Feb. 24, Apr. 8,9; discharge estimated.

Monthly discharge of Sevier River below San Pitch River, near Gunnison, Utah, for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	266 261 266 266 234 237 105 160	95 193 230 214 175 125 105 70 50 52 66 48	185 224 248 232 232 205 135 141 77. 9 96. 5 107	11, 400 13, 300 15, 200 14, 300 12, 900 12, 600 8, 030 8, 670 4, 640 5, 930 6, 580 6, 580
The year	266	48	166	120,000

### SEVIER BRIDGE RESERVOIR NEAR JUAB, UTAH

LOCATION.—In NW. 1/4 sec. 1, T. 17 S., R. 2 W., at dam of Consolidated Sevier Bridge Reservoir Co., 13 miles southwest of Juab, Juab County.

RECORDS AVAILABLE.—January 1, 1914, to September 30, 1926.

GAGE.—Inclined staff gage 100 feet upstream from south end of dam.

COOPERATION.—Gage-height record furnished by Consolidated Sevier Bridge Reservoir Co.

Daily contents, in acre-feet, of Sevier Bridge Reservoir near Juab, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	5, 480	18, 700	35, 200	52, 100	66, 400	79, 700	91, 800	81, 200	49, 200	26, 100	12, 700	7, 050
2	5, 010	19, 300	35, 700	52, 600	67, 000	80, 100	92, 100	79, 400	48, 800	24, 700	12, 300	6, 780
3	4, 430	19, 800	36, 200	53, 000	67, 500	80, 600	92, 300	77, 700	47, 700	24, 900	12, 100	6, 510
4	3, 740	20, 400	36, 800	53, 500	68, 000	81, 100	92, 400	76, 300	47, 000	25, 300	11, 900	6, 220
5_:	2, 930	20, 900	37, 400	54, 000	68, 400	81, 500	92, 600	74, 400	46, 800	25, 400	11, 800	6, 220
6	2, 550	21, 500	37, 900	54, 500	69,000	81, 900	92, 800	73, 100	47, 000	24, 800	11, 700	6, 180
7	3, 110	22, 000	38, 500	55, 000	69,500	82, 400	93, 400	71, 700	46, 900	24, 100	11, 600	6, 050
8	4, 360	22, 600	39, 000	55, 500	70,100	82, 700	93, 800	70, 500	46, 700	23, 300	11, 600	6, 000
9	4, 750	23, 200	39, 600	56, 100	70,500	83, 000	94, 100	69, 400	46, 100	22, 400	11, 600	5, 880
10	5, 010	23, 700	40, 200	56, 400	70,900	83, 300	94, 500	68, 300	45, 600	21, 400	12, 400	5, 760
11	6, 050	24, 200	40, 800	56, 900	71, 300	83, 600	94, 800	67, 300	45, 500	20, 400	12, 900	5, 510
12	6, 650	24, 500	41, 400	57, 400	71, 700	83, 900	95, 200	66, 400	45, 300	19, 400	13, 100	5, 240
13	7, 270	24, 800	41, 900°	57, 900	72, 300	84, 400	95, 700	65, 400	45, 00¢	19, 200	13, 300	4, 980
14	7, 840	25, 200	42, 400	58, 400	72, 800	84, 900	95, 800	64, 300	44, 800	19, 000	13, 500	4, 980
15	8, 860	25, 600	43, 000	58, 900	73, 400	85, 400	96, 200	63, 700	44, 600	18, 200	13, 700	4, 720
16	9, 340	26, 200	43, 600	59, 300	73, 900	85, 900	96, 500	63, 000	44,000	17, 500	13, 800	4, 390
17	9, 850	26, 800	44, 200	59, 700	74, 500	86, 300	96, 200	62, 200	43,300	16, 600	13, 900	4, 180
18	10, 400	27, 500	44, 800	60, 200	75, 100	86, 900	95, 500	61, 500	42,400	15, 900	13, 900	4, 010
19	11, 100	28, 400	45, 300	60, 700	75, 600	87, 500	94, 800	60, 700	41,600	15, 300	13, 800	3, 710
20	11, 900	28, 900	45, 700	61, 200	76, 300	87, 900	94, 100	59, 900	40,400	15, 200	13, 100	3, 420
21	12, 500	29, 600	46, 200	61, 700	76, 800	88, 400	93, 600	59, 300	39, 500	14, 800	12, 500	2, 990
22	13, 000	30, 200	46, 800	62, 100	77, 000	88, 900	92, 900	58, 700	38, 400	14, 200	11, 800	2, 550
23	13, 700	30, 600	47, 500	62, 500	77, 300	89, 400	92, 300	57, 900	36, 900	13, 800	11, 300	1, 840
24	14, 400	31, 400	47, 900	63, 000	77, 600	89, 600	91, 200	57, 200	35, 500	13, 400	10, 700	2, 740
25	15, 000	31, 900	48, 400	63, 500	78, 000	89, 900	90, 200	56, 200	33, 900	13, 100	10, 200	3, 810
26 27 28 29 30 31	15, 600 16, 200 16, 700 17, 200 17, 700 18, 100	32, 400 33, 000 33, 500 34, 000 34, 500	48, 900 49, 300 49, 800 50, 200 50, 800 51, 500	63, 900 64, 300 64, 600 65, 100 65, 500 66, 000	78, 500 79, 100 79, 700	90, 400 90, 700 90, 900 91, 100 91, 400 91, 800	89, 100 87, 900 86, 300 84, 600 83, 000	55, 100 53, 500 52, 300 51, 400 50, 700 50, 000	32, 600 31, 200 29, 800 28, 600 27, 500	12, 900 13, 000 13, 000 13, 000 13, 000 12, 900	9, 620 9, 120 8, 600 8, 080 7, 650 7, 320	4, 500 4, 500 4, 430 4, 360 4, 070

## SEVIER RIVER NEAR JUAB, UTAH

Location.—In NE. 1/2 sec. 2, T. 17 S., R. 2 W., 1,600 feet downstream from Sevier Bridge Dam and 13 miles southwest of Juab, Juab County.

Drainage area.—5,120 square miles (measured on topographic maps).

RECORDS AVAILABLE.—September 23, 1911, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by O. E. Howard.

DISCHARGE MEASUREMENTS.—Made from cable 600 feet above gage or by wading. CHANNEL AND CONTROL.—One channel at all stages. Bed composed of sand, clay, and fine gravel. Artificial control of rocks below gage.

EXTREMES OF DISCHARGE.—1911-1926: Maximum stage recorded, 8.50 feet at 7 p. m. June 2, 1922 (discharge, 2,140 second-feet); no flow March 7, 1918. Ice.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—None between this station and that near Gunnison.

REGULATION.—Flow regulated by gates in dam just above station.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve well defined. Water-stage recorder operated satisfactorily except during winter, when only seepage water was passing gage. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Discharge estimated during winter when recorder was not operated. Records good.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Discharge measurements of Sevier River near Juab, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Apr. 17 May 1 May 9	Feet 2, 64 4, 62 4, 00	Secft. 347 1,050 786	June 1 June 9 July 16	Feet 3, 22 2, 36 2, 94	Secft. 535 261 454	July 30	Feet 2. 03	Secft. 168

Daily discharge, in second-feet, of Sevier River near Juab, Utah, for the year ending September 30, 1926

Day	Oet.	Nov.	Apr.	May	June	July	Aug.	Sept.
1 2 3 4 4 5	294 376 356 328 293	3 2 2 2 2 2		991 1,000 1,020 1,060 1,010	537 520 510 406 5	714 301 6 6 230	271 280 253 206 190	201 198 195 134 101
6	265 58 3 2	2 2	2	1, 000 1, 100 920 795 781	73 199 270 259 259	491 488 576 683 707	192 195 184 72 5	111 101 101 101 126
11. 12. 13. 14. 15.	2 2 2 2			768 768 741 626 497	256 212 184 184 320	662 422 <b>224</b> 399 449	22 68 71 80 82	162 190 19 <b>5</b> 212 283
16	2	2	161 312 379 462 350	478 491 557 613 586	517 547 547 567 567	440 436 430 265 221	82 82 139 259 372	280 277 286 308 321
21	2		401 449 484 553 662	553 550 646 710 758	646 778 848 837 826	305 305 250 218 218	353 350 347 340 334	334 259 159 4 4
26	2 2 2 2 2 2 2		700 788 918 960 974	826 820 673 530 427 478	816 806 785 761 747	187 157 157 157 165 198	324 312 321 296 262 206	4 68 96 259 302

NOTE.—Reservoir gates closed from Oct. 7 to Apr. 16; seepage water only (about 2 second-feet) during this period.

Monthly discharge of Sevier River near Juab, Utah, for the year ending September 30, 1926

"	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April	974		65. 0 • 2. 0 • 2. 0 • 2. 0 • 2. 0 • 2. 0	4, 000 119 123 123 111 123 17, 000
May June July August September The year	714	427 5 6 5 4	735 494 338 211 179	45, 200 29, 400 20, 800 13, 000 10, 700

<sup>·</sup> Estimated; seepage water only.

## SEVIER RIVER AT OASIS, UTAH

LOCATION.—In E. ½ sec. 33, T. 17 S., R. 7 W., three-quarters of a mile northwest of Oasis, Millard County, and 1½ miles below county bridge locally known as Hinckley Bridge.

Drainage area.—8,080 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 13, 1912, to September 30, 1926.

Gage.—Stevens continuous water-stage recorder on left bank; inspected by Alfred Stanworth.

DISCHARGE MEASUREMENTS.—Made from county bridge or by wading.

Channel and control.—Two channels at extremely high water; one channel at low and medium stages. Bed composed of sand with slight aquatic vegetation. Control is fairly permanent.

EXTREMES OF DISCHARGE.—1912-1926: Maximum discharge, 1,580 second-feet June 12, 1914; minimum, 0.5 second-foot May 13-19, 1912.

Ice.—Stage-discharge relation at times affected by ice.

Diversions.—Numerous diversions above station take practically entire flow during irrigation season; water passing gage at such times is largely seepage or return water entering below Gunnison Bend Reservoir.

REGULATION.—Flow controlled by storage reservoirs and diversion dams above

Accuracy.—Stage-discharge relation affected by backwater from dam after June 17. Rating curves fairly well defined. Water-stage recorder operated satisfactorily. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records fair.

Cooperation.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

The following discharge measurements were made:

May 18, 1926: Gage height, 1.76 feet; discharge, 24.4 second-feet.

June 27, 1926: Gage height, 2.00 feet; discharge, 25.8 second-feet.

July 15, 1926: Gage height, 1.57 feet; discharge, 12.9 second-feet.

Daily discharge, in second-feet, of Sevier River at Oasis, Utah, for the year ending September 30, 1926

			ſ		·		I	·	1	1		
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13 13 14 14 18	12 17 20 18 17	16 15 15 15 14	11 15 11 12 16	16 17 17 16 16	15 16 15 16 16	7 7 8 8 8	12 14 16 16 17	15 14 15 15 15	15 12 12 11 11	19 19 19 19 21	14 13 7 11 6
6	14 18 18 18 19	17 18 11 17 16	9 14 14 15 15	16 16 16 18 11	16 12 16 17 17	16 10 16 16 16	8 8 9 9	18 19 20 18 20	17 18 16 13	11 10 9 9 10	13 10 11 10 10	6 6 6 6
11 12 13 14 15	17 19 18 18 18	18 18 19 18 13	16 20 10 15 18	18 17 16 17 17	16 18 17 13 19	15 15 15 9 15	9 8 8 8	25 18 20 20 17	12 12 11 14 12	9 10 10 11 12	10 9 8 7 7	6 6 8 12
16	18 18 14 18 17	20 24 23 22 22	23 16 15 15 10	17 12 16 16 17	23 18 18 17 17	15 15 14 10 9	9 8 8 8	16 19 25 25 22	12 11 12 12 12	11 11 10 10 10	7 7 7 7	12 11 7 6
21 22 23 24 25	17 17 17 17 13	18 12 16 16 16	16 17 15 15	17 17 16 16 16	11 16 16 16 16	· 8 8 7 8 7	8 7 9 8 10	23 24 25 25 24	11 10 11 11 11 12	9 9 18 15 11	13 13 13 13 10	6 8 9 11
26	16 18 17 17 17 17	11 16 16 10 16	15 10 18 16 19 16	18 17 17 16 16 16	15 15 10	7 7 8 9 11 7	11 10 11 11 12	24 25 28 24 19 18	14 20 16 17 17	12 11 10 10 10 11	7 11 12 12 12 12	13 10 9 10 10

Monthly discharge of Sevier River at Oasis, Utah, for the year ending September 30, 1926

	Dische	rge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October	19	13	16. 7	1, 030	
	24	10	16. 9	1, 010	
December	23	9	15. 1	928	
	18	11	15. 6	959	
February March	23 16 12	10 7	16. 1 12. 0 8. 7	894 738 518	
April	26	12	20. 5	1, 260	
	20	10	13. 7	815	
JulyAugust	18	, 9	11. 0	67 <b>6</b>	
	21	7	11. 5	707	
September The year	14 26	6	8. 4 13. 8	10,000	

## EAST FORK OF SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—In SW. ¼ sec. 13, T. 30 S., R. 3 W., 1 mile below highway bridge and 2 miles east of Kingston, Piute County.

Drainage area.—1,260 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 29, 1914, to September 30, 1926. Records obtained 1½ miles above Rockyford Bridge, in SW. ¼ sec. 16, T. 30 S., R. 2½ W., March 27, 1913, to April 28, 1914; also at gage three-fourths mile north of Kingston, in NE. ¼ sec. 10, T. 30 S., R. 3 W., May 11 to September 20, 1912.

GAGE.—Stevens continuous water-stage recorder on right bank 1 mile below highway bridge; inspected by W. S. Price.

DISCHARGE MEASUREMENTS.—Made from cable 2 miles above gage, from highway bridge 1 mile above, or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Right bank is overflowed during high water. Bed composed of gravel. Concrete control 20 feet below gage.

EXTREMES OF DISCHARGE.—1913-1926: Maximum stage recorded, 6.10 feet May 8, 1922 (discharge, 1,740 second-feet); minimum, 1.00 foot September 19-21, 1913 (discharge, 8 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Above all diversions in vicinity of Kingston.

REGULATION.—Flow largely regulated at Otter Creek Reservoir 8 miles above.

Accuracy.—Stage-discharge relation changed several times during year by deposits of sediment on control; affected by ice December 4-8 and December 15 to February 23. Normal rating curve well defined. Operation of water-stage recorder satisfactory except as indicated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records fair.

COOPERATION.—Station maintained and computations made in cooperation with Sevier River water commissioner.

Discharge measurements of East Fork of Sevier River near Kingston, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Apr. 11	Feet 2. 77 2. 73 3. 30 3. 27	Secft. 36. 8 32. 7 122 112	June 21 July 3 July 19 Aug. 2	Feet 3. 50 3. 84 3. 93 3. 64	Secft. 157 319 306 202	Aug. 12 Sept. 18 Sept. 21	Feet 3. 60 3. 22 3. 12	Secft. 198 103 76. 3

Daily discharge, in second-feet, of East Fork of Sevier River near Kingston, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	37 20 20 20 20 27	18 18 18 18 18	20 20 20 20 20 20			20 20 18 19 20	23 28 28 28 23 20	60 50 40 40 38	112 112 115 115 115	148 157 323 384 388	199 202 202 205 205	199 205 208 212 212
6	41 26 23 23 24	18 18 18	20 20 20 20 20 20			19 19 19 20 21	21 21 20 24 27	31 31 30 28 29	120 120 120 120 120 120	388 384 372 380 380	205 212 208 208 208 205	212 205 199 192 183
11	24 24 23 23 23	20	20 20 20 18	} 18	18	22 23 24 25 26	38 40 40 48 64	32 33 34 33 33	120 120 120 120 120 120	339 331 331 327 327	202 199 199 205 205	174 162 154 143 132
16 17 18 19 20	23 23 21 18 18	23 23 23 24 26				35 45 36 24 23	69 61 43 40 29	33 35 35 100	120 120 135 157 154	319 315 307 307 311	212 208 208 208 208 205	125 111 97 96 88
21	18 18 17 17 15	25 21 18 18 19	18		18 18	20 14 23 26 18	31 49 61 78 100	122	154 154 154 148 146	276 239 208 199 199	202 199 202 199 202	78 71 66 61 56
26	16 16 16 17 18 18	20 22 21 21 20		16	19 20 20	18 18 17 17 17 17	140 186 148 122 99	122 122 122 122	143 146 148 148 148	195 195 195 192 189 199	202 199 202 199 199 199	55 53 53 53 53 53

NOTE.—No gage-height record and discharge estimated Oct. 22, 23, Nov. 4-7, 9-14, Apr. 25, 28, May 1-3, 19-28, and Sept. 17; affected by ice and mean discharge estimated Dec. 4-8 and Dec. 15 to Feb. 23. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of East Fork of Sevier River near Kingston, Utah, for the year ending September 30, 1926

	Discha	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August	45 186 122 157 388	15 18 	21. 5 20. 3 18. 8 17. 3 18. 2 22. 0 57. 4 71. 3 131 284 203	1, 320 1, 210 1, 160 1, 060 1, 010 1, 350 3, 420 4, 380 7, 800 17, 500
September The year	388	53	130	7, 740 60, 400

### ROCKYFORD CANAL NEAR VERMILION, UTAH

LOCATION.—In sec. 19, T. 22 S., R. 1 W., 300 feet below head of canal and 2 miles northeast of Vermilion, Sevier County.

RECORDS AVAILABLE.—July 8, 1914, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by O. A. Wilkinson.

DISCHARGE MEASUREMENTS.—Made from highway bridge 400 feet downstream or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and clay; shifts. Banks lined with willows.

ICE.—Stage-discharge relation affected at times by ice.

**DIVERSIONS.**—None above gage. Gage is a short distance below wasteway that returns surplus water to Sevier River.

REGULATION.—Flow regulated by head gates and wasteway.

ACCURACY.—Stage-discharge relation shifting, affected by backwater from check gate below gage. Normal rating curve used, shifting to measurements. Water-stage recorder operated satisfactorily except for two short periods, during which flow was practically constant. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method. Records fair.

COOPERATION.—Station maintained and records compiled in cooperation with Sevier River water commissioner.

Canal diverts water from Rockyford Reservoir, a small reservoir on Sevier River at Vermilion, in sec. 19, T. 22 S., R. 1 W. Flow dependent on water stored in reservoir and seepage and return waters below Richfield. Water used for irrigation north of Vermilion.

Discharge measurements of Rockyford Canal near Vermilion, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	` Date	Gage height	Dis- charge
Oct. 15 Feb. 6 Apr. 8	Feet 1. 58 1. 32 1. 48	Secft. 39. 3 26. 2 33. 4	May 3 June 7 June 25	Feet 2, 39 2, 39 2, 42	Secft. 78. 9 83. 0 77. 7	July 5	Feet 2. 37 1. 88 1. 84	Secft. 78. 3 50. 1 36. 0

Daily discharge, in second-feet, of Rockyford Canal near Vermilion, Utah, for the year ending September 30, 1926

			,							<del>,</del>	1	
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	44	42	27	27	26	20	32	80	74	80	48	1
2	44	42	27	27	26	20	32	79	74	81	42	
3	43	42	27	27	26	20	32	81	88 88 88	81	42	11
4	47	42	27	27	26	20	32	82	88	81	41	52
5	5 <b>1</b>	42	27	27	26.	20	32	55	88	79	/41	·
6	57	42	27	27	26	20	32	39	88	79	41	IJ
7	59	42	27	27	26	20	34	37	81	79	39	56
8	59	42	27	27	26	20	34	34	76	81	35	57
9	52	31	27	27	26	20	34	38	49	86	36	56 57 57
10	39	· 17	26	27	26	21	34	39	42	81	37	56
11	39	20	26	27	26	21	34	30	42	73	38	55
12	38	29	26	27	26	21	35	0	43	72	38	53
13	38	35	26	27	26	21	35	Ó	43	70	38	53 58 62
14	40	35	26	27	26	20	35	0	43	70	38	62
15	39	35	26	26	26	20	48	<b>2</b> 6	43	70	37	66
16	39	35	26	26	26	19	70	52	43	72	37	45
17	39	34	26	26	26	19	71	74	43	72	36	45
18	39	34	27	26	26	19	72	74	72	72	41	44
19	39	27	27	26	26	33	72	75	86	72	45	42
19 20	39	25	27	26	32	56	72	74	81	70	46	42 41
21	39	26	26	26	45	53	74	74	72	56	44	38
22	39	26	27	27	46	45	75	75	79	44	44	35
23	39	26	26	27	47	44	81	74	79	47	42	36
24	39	26	26	27	35	30	82	73	80	45	42	37
25	39	26	27	27	21	30	82	74	79	47	42	38 35 36 37 37
26		00	07	00	21	32	82	74	78	48	40	97
	39	26	27	26			82 82	74	77	48		3/
	41	26	27	26	21 21	30	82 82		77	46	38	30
28 29	41 42	26	27	26	21	30 32	82 81	74	79	47	46 47	30
	42	26 27	27	26 26		32	81	74	79	48	48	37 36 36 37 38
		27	27 27			32	91	74	19	48	48	38
31	42		27	26		52		14		***	4.0	
		<u> </u>		<u> </u>	l		1	<u> </u>	l	<u> </u>	{	]

Monthly discharge of Rockyford Canal near Vermilion, Utah, for the year ending September 30, 1926

	Discha	-feet	Run-off in	
· Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August	27 27 47 56 82 82 88 88	38 17 26 26 21 19 32 0 42 44 35	42. 8 31. 8 26. 6 26. 6 28. 0 27. 1 55. 8 57. 5 68. 9 65. 9 41. 2	2, 630 1, 890 1, 640 1, 649 1, 560 1, 670 3, 320 3, 540 4, 100 4, 050 2, 530
SeptemberThe year	88	35	43.3	2, 810 31, 400

## BEAVER RIVER BASIN

#### BEAVER RIVER NEAR BEAVER, UTAH

LOCATION.—In SE. ¼ sec. 18, T. 29 S., R. 6 W., a quarter of a mile above city diversion dam at mouth of canyon and 4½ miles east of Beaver, Beaver County.

Drainage area.—82 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 15 to September 22, 1906; March 15, 1914, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by G. W. Valantine.

DISCHARGE MEASUREMENTS.—Made from footbridge 70 feet above gage or by wading.

Channel and control.—Bed composed of boulders and coarse gravel. One channel; left bank subject to overflow at extremely high stages. Control composed of boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 6.20 feet at 8 p. m. May 19 (discharge, 740 second-feet); minimum, 3.18 feet at 7 p. m. September 5 (discharge, 16 second-feet).

1914-1926: Maximum stage, 6.31 feet at 6 p. m. May 25, 1922 (discharge, 785 second-feet); minimum, 3.12 feet at 1 p. m. September 27, 1924 (discharge, 7 second-feet).

ICE.—Stage-discharge relation seriously affected.

DIVERSIONS.—Above all irrigation diversions. Above station is a small storage reservoir known as Kents Lake. Water is diverted by Beaver River Power Co. but returned to stream several miles above station.

REGULATION.—Flow may be affected by operation of Beaver River Power Co.'s plants and to some extent by Kents Lake Reservoir.

Accuracy.—Stage-discharge relation shifted slightly for low-water stages during high water. Rating curves fairly well defined. Water-stage recorder operated successfully except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph or weekly readings. Discharge estimated or interpolated for period of ice effect and for days of missing gage height. Records fair.

Discharge measurements of Beaver River near Beaver, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Dec. 11 Dec. 15	Feet  43. 72  43. 76	Secft. 26. 1 24. 4	May 7 June 9	Feet 4. 71 4. 30	Secft. 221 125	Aug. 28	Feet 3, 35	Sec,-ft, 26.8

Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Beaver River near Beaver, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24 28 28 31 48	28 31 31 26 27	27 29 27		20	20	25 24	215 218 220	218 203 188 176 167	62 62 58 62 67	30 32 32 32 32 35	25 24 24 24 24 23
6 7 8 9 10	44 34 32 31 30	33 31 25 32 28	26	22	21	17	30	218 191 171 151	158 151 149 141 127	64 58 57 56 53	33 35 47 37 35	25 24 25 24 24 24
11	33 34 34 31 33	28 28 29 29			22	35	36 60	145 154 158 196 250	122 112 106 98 92	49 48 41 39 37	33 32 31 32 32	24 24 25 25 27
16	29 32 31 31 31				22	35	83 83	343 418 456 523 523	85 78 72 69 64	37 36 36 35 35	32 33 32 31 32	27 27 27 26 25
21	31 31 31 30 30	28	24	20	22	34	174	523 493 450 365 293	66 76 72 68 67	34 31 30 30 30	30 27 27 27 27 27	27 25 25 26 25
26	30 31 31 30 28 28	28 26 27			25	29 28	195	244 226 218 221 213 216	63 62 62 66 66	31 34 36 34 32 30	27 27 27 24 25 25	27 27 24 24 24 24

Note.—Stage-discharge relation affected by ice Dec. 4 to Jan. 31; discharge estimated. Recorder not operated but weekly readings obtained Nov. 15-27 and Feb. 1 to May 6; discharge estimated or interpolated between readings. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Beaver River near Beaver, Utah, for the year ending September 30, 1926

3,13,13	Discha	d-feet		
Month	Maximum	Minimum	Mean	Run-off in acre-feet
October November December January February March April May June July August September	523 218 67		31. 6 28. 4 24. 8 21. 0 21. 9 28. 1 88. 6 280 108 43. 4 31. 0 25. 1	1, 940 1, 690 1, 520 1, 290 1, 730 5, 270 17, 200 6, 430 2, 670 1, 910
The year	523		61.3	44, 400

## BEAVER RIVER AT ADAMSVILLE, UTAH

LOCATION.—In S. ½ sec. 30, T. 29 S., R. 8 W., 100 yards below highway bridge on road from Milford to Beaver, a quarter of a mile above mouth of Indian Creek, and three-quarters of a mile south of Adamsville, Beaver County. Drainage area.—272 square miles (measured on topographic maps).

RECORDS AVAILABLE.—December 16, 1913, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by W. A. Rees.

DISCHARGE MEASUREMENTS.-Made from cable at gage or by wading.

Channel and control.—Bed composed of fine gravel. Banks low; covered with willows; subject to overflow at extremely high stages. Concrete control constructed July 11, 1916, and rebuilt September 26, 1919.

EXTREMES OF DISCHARGE.—Maximum stage during year, 3.70 feet at 7 a.m. May 20 (discharge, 395 second-feet); minimum discharge, 1 second-foot during part of September.

1914–1926: Maximum stage, 4.85 feet at 6 a. m. May 23, 1920 (discharge, 796 second-feet); practically no flow during parts of May, August, September, and October, 1924.

Ice.—Stage-discharge relation affected by ice for very short periods.

DIVERSIONS.—No diversions between station and storage reservoir of Beaver County Irrigation Co. Several ditches above station supply Adamsville and Beaver districts.

REGULATION.—Flow affected by irrigation diversions.

Accuracy.—Stage-discharge relation slightly affected at times by moss growth on bar below concrete control. Standard rating curve we'll defined below 500 second-feet. Water-stage recorder stopped frequently, but variations in stage usually not very great. On account of these breaks in gage-height record discharge records are rated fair.

Discharge measurements of Beaver River at Adamsville, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Dec. 11	Feet 1. 95 2. 28	Secft. 42. 9 87. 8	June 10	Feet 1. 59 1. 47	Secft. 11. 9 4. 6

Daily discharge, in second-feet, of Beaver River at Adamsville, Utah, for the year ending September 30, 1926

									,			
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	16	39	41	46	36	34	25	111	65	6	5	3 2
2	15	40	44	44	35	35	26	88	48	7	7	2
3	15	40	49	45	38	35	28	100	41	8	13	1
4	24	41	43	44	36	35	28	125	36	8	12	lī
5		42	48	45	35	33	33	200	29	31	13	į į
6	49	42	49	45	34	30	.38	192	23	46	14	2 2 2 2
7	32	43	46	46	33	32	43	117	19	27	14	2
8	30	44	44	50	33	32	43	85	16	21	20	2
9	33	46	42	53	32	34	43	73	13	22	50	1 2
10	35	47	44	50	31	44	43	62	10	23	40	1
11	41	48	45	49	32	41	45	50	9	20	42	1
12	39	49	45	1	34	35	47	39	7	17	38	1
13	50	50	48		36	34	49	47	6	15	34	1
14	58	52	45		36	36	51	55	6	12	30	1 1
15	52	53	52	l	36	36	47	64	6	11	25	1
16	53	49	54	1	37	33	44	h	6	10	21	1
17	53	48	51		37	31	40	155	16	9	20	2
18	54	49	48		37	30	39		6	8	18	2
19	52	52	50		38	30	54	245	6	7	16	2
20	50	51	46	ي ا	38	46	53	326	ő	7	14	1 2 2 2 2 2
21	49	51	45	45	39	33	45	330	5	6	13	3
22	49	50	45	l	40	29	58	306	4	6	12	3
23	49	52	44	ł	42	34	70	h	4	6	10	3
24	49	52	44	1	43	39	84	210	$\hat{4}$	7	9	2
25	49	58	43	1	38	38	1	1 210	4	7	8	3 3 2 2
26	49	54	43	]	34	38	95	129	4	8	7	2
27	49	46	44	[	30	38		90	4	8	5	1 2
28	49	44	46	I	33	34	108	82	ŝ	8 8 8	4	2 2 2 2 2
29	45	42	48	[	00	31	136	77	6	8	4	2
30	42	41	49	50		27	136	72	6	6	3	2
31	38	41	48	37		24	100	70	ا ا	6	3	-
V1	90	<b></b>	*0	9/		24		70		0		

Note.—Water-stage recorder stopped frequently; discharge interpolated or estimated for days of missing gage-height record. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Beaver River at Adamsville, Utah, for the year ending September 30, 1926

26. 11	Discha	Run-off in		
Month .	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	58 54 43 46 126 330 65 46 50	15 39 41 30 24 25 39 4 6	42. 6 47. 2 46. 3 45. 6 35. 8 34. 2 58. 0 13. 7 12. 6 16. 9 1. 8	2, 620 2, 810 2, 850 2, 800 1, 990 2, 100 3, 450 8, 360 815 775 1, 040
The year	330	1	41.1	29, 700

### BEAVER RIVER AT ROCKYFORD DAM, NEAR MINERSVILLE, UTAH

LOCATION.—In NW. ¼ sec. 11, T. 30 S., R. 9 W., half a mile below Rockyford Dam and 4 miles above Minersville, Beaver County.

Drainage area.—512 square miles (measured on topographic maps).

RECORDS AVAILABLE.—December 18, 1913, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; inspected by F. B. Robinson. DISCHARGE MEASUREMENTS.—Made by wading or from cable 1,000 feet below gage.

CHANNEL AND CONTROL.—Bed composed of gravel; some aquatic vegetation.

One channel at all stages. Banks not subject to overflow. Concrete control installed November 2–12, 1916.

EXTREMES OF DISCHARGE.—1913-1926: Maximum stage, 3.53 feet at 7 p. m. June 10, 1921 (discharge, 727 second-feet); minimum discharge (estimated), 0.3 second-foot March 19 and 20, 1914.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—None between dam and station; several above Adamsville.

REGULATION.—Flow regulated by operation of gates at Rockyford Dam.

ACCURACY.—Stage-discharge relation changed during later part of April, when water washed around left end of control. Rating curves well defined. When water-stage recorder was not operating observer supplied record of stage and gate operation from which accurate daily discharge was obtained. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

COOPERATION.—Gage-height record furnished by Beaver County Irrigation Co.

Discharge measurements of Beaver River at Rockyford Dam, near Minersville, Utah, during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	
Dec. 11	Feet 0.81 1.46	Secft. 6.3 71.8	June 10 ' Aug. 29	Feet 1. 51 1. 59	Secft. 76. 4 91. 3	

Daily discharge, in second-feet, of Beaver River at Rockyford Dam, near Minersville, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	13 11 10 8 7	6 6 6 6	5 5 6 6	7 7 7 7	8 8 8 8	9 10 10 10 10	11 11 11 11	65 65 65 68 68	101 97 96 90 89	103 103 101 101 87	37 52 59 59 62	87 86 86 81 73
6	7 7 7 7	6 6 6 6	6 6 6 6	7 7 7 7 7	9 9 9	10 10 10 10 10	11 11 11 11 11	70 70 70 75 75	89 87 84 84 78	69 68 68 59 78	68 69 72 76 76	72 66 65 65 65
11 12 18 14 15	7 7 7 7	5 5 5 5 5	6 6 6 6	7 7 7 7	9 9 9	10 10 10 10 10	11 11 11 11 11	75 78 79 81 81	76 72 72 69 68	90 90 90 97 97	76 76 76 76 76	64 63 54 42 41
16 17 18 19 20	7 7 7 7	5 5 5 5	6 6 6 6	7 7 7 8 8	10 10 10 10 10	10 10 10 10 10	11 11 11 11	81 81 81 90 94	66 65 66 49 59	97 97 97 96 96	76 76 75 75 76	41 41 41 26 16
21	7 6 6 6	5 5 5 5 5	6 6 6 6	8 8 8 8	10 10 10 10 9	10 10 10 10 10	10 10 29 44 44	97 99 99 99	65 66 73 81 95	92 78 69 66 66	79 79 78 76 78	16 10 9 9
26	6 6 6 6 6	5 5 5 5 5	6 6 6 6	8 8 8 8 8	9 9 9	10 10 11 11 11 11	44 44 44 44 52	99 103 103 103 103 103	105 105 105 105 105	65 65 66 73 37 37	82 84 89 89 89 87	9 9 9 9

Monthly discharge of Beaver River at Rockyford Dam, near Minersville, Utah, for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November	13 6	6 5	7. 1 5. 3	437 315
December	6 8	5 7	5. 9 7. 4	363 455
February March April	11	8 9 10	9. 1 10. 1 19. 5	505 621 1, 160
May June July	103 105	65 49 37	84. 5 82. 1 80. 6	5, 200 4, 890 4, 960
August September.	89 87	37 9	74. 1 42. 4	4, 560 2, 520
The year-	105	5	35.9	26, 000

## SALTON SINK BASIN

## SNOW CREEK NEAR WHITEWATER, CALIF.

LOCATION.—In NW. ¼ NW. ¼ sec. 33, T. 3 S., R. 3 E., 100 feet below intake of Southern Pacific Co.'s ditch, 300 feet below junction of forks, and 3½ miles southwest of Whitewater, Riverside County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—July 21, 1921, to September 30, 1926.

GAGE.—Water-stage recorder on left bank just above weir.

DISCHARGE MEASUREMENTS.—Made from gaging bridge just above intake of Southern Pacific Co.'s ditch or by wading.

Channel and control.—Bed consists of boulders and is rough. Control is concrete rectangular compound weir with end contractions and steel plates for crest.

EXTREMES OF STAGE.—Not reported.

DIVERSIONS.—See Southern Pacific Co.'s ditch record (p. 77).

REGULATION.-None.

Cooperation.—Record of daily discharge furnished by Southern Sierras Power Co.

Daily discharge, in second-feet, of Snow Creek near Whitewater, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	June	July	Aug.	Sept.
1 2 3 4 5	0. 5 . 5 . 6 8. 3 35	0. 4 . 4 . 4 . 5	0.6 15.4 5.9 1.6	0.4 .4 .4 .4	0.8 .4 2.4 .8 .4	0. 2 . 2 . 2 . 3 . 5	0. 6 . 6 . 6	6. 4 6. 4 6. 4 6. 4 6. 4	2. 3 2. 2 2. 2 2. 3 2. 5	0.4 .4 .5 .6	0.6 .6 .5 .5
6	4. 2 1. 4 . 4 . 1	.5 .3 .3 .3	.1 .1 .1 .1	.4 .4 .4 .4	.4 .4 .5 .5	.4 .5 .8 .9		6. 4 6. 4 6. 3 5. 9 5. 0	1. 8 1. 4 1. 4 1. 4 1. 3	.6 .6 .6	.5 .5 .5 .5
11	.3 .2 .2 .2 .2	.4 .4 .4 .4	.1 .2 .2 .2	.4 .4 .4 .4	. 4 3. 4 14. 3 4. 7 2. 8	.6 .5 .6		4. 6 5. 0 4. 2 4. 1 3. 7	1.3 1.3 1.2 1.1	.5 .5 .5	.6 .6 .6
16	.2 .2 .2 .2	.4 .4 .4 .4	.2 .2 .2 .3	.4 .4 .4 .4	1.8 .9 .6 .1	.4 .5 .6 .6		3. 4 3. 4 3. 4 3. 4 3. 4	1. 1 1. 4 1. 6 1. 4 . 8	.5 .5 .5 .6	.5 .6 .6
21	.2 .2 .2 .2 .2	.4 .4 .4 2.7 1.2	.3 .3 .2 .2	.4 .4 .4 .4	.2 .2 .2 .2	.6 .6 .6		2.7	.3 .3 .3 .3	.6 .5 .5 .5	.6 .5 .5 .5
26	.2 .2 .2 .2 .4 .4	.7 .6 .6 .6	.3 .3 .3 .3 .3	.4 .4 .4 .4 .4	.3	.6 .6 .6 .7 .6		2.6	.6 .6 .4 .4 .4	.6 .6 .6 .6	.6 .6 .6 .6

Monthly discharge of Snow Creek near Whitewater, Calif., for the year ending September 30, 1926

	Discha	Discharge in second-feet					
Month	Maximum	Minimum	Mean	Run-off in acre-feet			
October November December January February March April May June July August September	2.7 15.4 1.4 14.3 .9 6.4 2.5	0.1 .3 .1 .4 .1 .2 .2 .2 .3 .4 .3	1. 81 . 54 . 96 . 44 1. 37 . 55 6. 45 4. 24 1. 14 . 54	111 32. 1 59. 0 27. 1 76. 1 33. 8 384 397 252 70. 1 33. 2 33. 3			
The year		.1	2. 08	1, 510			

<sup>·</sup> Estimated.

Combined daily discharge, in second-feet, of Snow Creek and Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	June	July	Aug.	Sept.
1 2 3 4 5	3. 9 3. 9 4. 0 19. 1 53	4. 7 4. 7 5. 3 5. 7 5. 4	5. 5 28 17. 3 11. 2 8. 7	6. 8 6. 2 6. 0 5. 8 5. 6	8. 0 6. 6 10. 5 9. 1 6. 8	5. 6 5. 6 5. 6 5. 9 6. 9	6.8 6.8 6.8	12.0 12.0 12.0 12.0 12.0	6.8 6.5 6.3 6.3	5. 6 5. 6 6. 1 7. 2 7. 2	4. 6 4. 4 4. 4 4. 3 4. 3
6	14. 5 9. 7 8. 3 6. 5 6. 1	5. 2 5. 0 5. 0 4. 8 4. 9	8. 0 6. 9 6. 5 6. 5 6. 3	5. 4 5. 4 5. 3 5. 3 5. 1	6. 2 6. 0 5. 9 5. 7 5. 7	6. 6. 7 7. 4 7. 9 7. 8		12. 2 12. 0 11. 7 11. 3 10. 4	6. 3 6. 4 6. 6 6. 6 6. 5	6. 6 6. 2 6. 0 5. 6 5. 5	4. 5 4. 5 4. 6 4. 6
11	5. 9 5. 8 6. 0 5. 8 5. 8	4.7 4.9 4.7 4.9 4.9	5. 9 6. 0 6. 0 5. 8 5. 6	5. 1 5. 1 5. 1 4. 9 5. 0	5. 4 12. 2 27 15. 5 12. 4	7. 0 6. 6 6. 1 6. 2 6. 3		9. 8 10. 0 9. 2 9. 0 8. 6	6. 5 6. 3 6. 2 6. 0 6. 0	5. 2 5. 2 5. 0 5. 0 5. 0	4.6 4.4 4.4 4.3 4.2
16	5. 6 5. 2 5. 1 5. 1 4. 9	4.9 4.9 4.9 4.9 4.7	5. 4 5. 4 5. 6 5. 7 5. 7	4.7 4.7 4.7 4.7 4.7	10. 9 9. 0 8. 3 7. 2 7. 2	6. 2 6. 5 6. 6 7. 0 7. 2		8. 1 8. 1 8. 1 8. 1 8. 1	6. 0 6. 6 6. 8 6. 4 6. 0	4. 8 4. 6 4. 6 4. 6 4. 7	4. 2 4. 3 4. 3 4. 3 4. 1
21	4. 9 5. 1 5. 1 4. 9 4. 9	4.7 4.7 4.7 9.9 9.5	5. 5 5. 5 5. 5 5. 4 5. 2	4.5 4.5 4.5 4.5 4.5	6. 8 6. 6 6. 2 6. 0 6. 0	7. 2 7. 0 6. 8 7. 0 7. 2		7.6 7.3 7.2 7.2 7.1	6. 1 5. 9 5. 9 5. 9 5. 7	4.7 4.5 4.5 4.3 4.3	4. 1 4. 0 4. 2 4. 0 4. 1
26	4.9 4.7 4.7 4.7 4.7 4.7	7. 1 6. 2 6. 0 5. 6 5. 5	5. 3 5. 3 5. 7 5. 5 6. 2	4.5 4.4 4.4 4.5 8.0	5. 9 5. 9 5. 8	7. 4 7. 2 7. 0 7. 0 7. 1 6. 8		7. 1 7. 1 7. 1 7. 0 6. 9	7. 2 7. 4 6. 2 5. 8 5. 6 5. 4	4.9 5.8 4.9 4.7 4.7	4.1 4.1 4.3 4.4

Combined monthly discharge of Snow Creek and Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1926

	Discha	Run-off in		
Month	Maximum	Minimum	Меап	acre-feet
October November December January February March April May June July August	9. 9 28 8. 0 27 7. 9	3. 9 4. 7 5. 2 4. 4 5. 4 5. 6 	7. 66 5. 43 7. 17 5. 11 8. 39 6. 75 15. 2 12. 9 9. 21 6. 27 5. 24	471 323 441 314 466 415 904 793 548 386 322
September	4.6	3.9	7. 79	256 5, 640

## SOUTHERN PACIFIC CO.'S DITCH NEAR WHITEWATER, CALIF.

LOCATION.—In NW. ¼ NW. ¼ sec. 33, T. 3 S., R. 3 E., 200 feet below intake and 3½ miles southwest of Whitewater, Riverside County.

RECORDS AVAILABLE.—July 20, 1921, to September 30, 1926.

GAGE.—Water-stage recorder on left bank 200 feet below intake.

DISCHARGE MEASUREMENTS.—Made from foot log at gage or by wading.

Channel and control.—Bed of channel consists of small boulders and gravel; both banks covered with trees.

EXTREMES OF STAGE.—Not reported.

Cooperation.—Record of daily discharge furnished by Southern Sierras Power Co.

Daily discharge, in second-feet, of Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
12 34 5	3. 4 3. 4 3. 4 10. 8 17. 6	4.3 4.3 4.9 5.2 4.9	4. 9 12. 8 11. 4 9. 6 8. 3	6. 4 5. 8 5. 6 5. 4 5. 2	7. 2 6. 2 8. 1 8. 3 6. 4	5. 4 5. 4 5. 4 5. 6 6. 4	6. 2 6. 2 6. 2 6. 2 22	7. 5 7. 5 7. 7 7. 0 7. 2	5. 6 5. 6 5. 6 5. 6 5. 6	4. 5 4. 3 4. 1 4. 0 3. 8	5, 2 5, 2 5, 6 6, 6 6, 6	4.0 3.8 3.8 3.8 3.8
6	10. 3 8. 3 7. 9 6. 4 5. 8	4.7 4.7 4.7 4.5 4.5	7. 9 6. 8 6. 4 6. 4 6. 2	5. 0 5. 0 4. 9 4. 9 4. 7	5. 8 5. 6 5. 4 5. 2 5. 2	6. 2 6. 2 6. 6 7. 0 7. 0	28 11. 1 14. 0 11. 1 7. 7	7. 7 6. 8 6. 6 6. 6 6. 4	5. 8 5. 6 5. 4 5. 4 5. 4	4. 5 5. 0 5. 2 5. 2 5. 2 5. 2	6. 0 5. 6 5. 4 5. 0 4. 9	4.0 4.0 4.0 4.1 4.1
11	5. 6 5. 6 5. 8 5. 6 5. 6	4.3 4.5 4.3 4.5 4.5	5. 8 5. 8 5. 8 5. 6 5. 4	4.7 4.7 4.7 4.5 4.5	5. 0 8. 8 12. 5 10. 8 9. 6	6. 4 6. 0 5. 6 5. 6 5. 8	6. 4 8. 1 7. 7 7. 2 6. 6	6. 2 6. 2 6. 2 6. 4 6. 2	5. 2 5. 0 5. 0 4. 9 4. 9	5. 2 5. 0 5. 0 4. 9 4. 9	4.7 4.7 4.5 4.5 4.5	4.0 3.8 3.8 3.7 3.7
16 17 18 19 20	5. 0 4. 9	4.5 4.5 4.5 4.5 4.3	5. 2 5. 2 5. 4 5. 4 5. 4	4.3 4.3 4.3 4.3 4.3	9. 1 8. 1 7. 7 7. 2 7. 0	5. 8 6. 0 6. 0 6. 4 6. 6	6. 2 5. 0 5. 0 5. 4 4. 7	6. 4 6. 4 6. 6 6. 6 6. 8	4.7 4.7 4.7 4.7 4.7	4. 9 5. 2 5. 2 5. 0 5. 2	4.3 4.1 4.1 4.1 4.1	3.7 3.8 3.7 3.7 3.5
21	4 7 4.9 4.9 4.7 4.7	4.3 4.3 4.3 7.2 8.3	5. 2 5. 2 5. 2 5. 2 5. 0	4. 1 4. 1 4. 1 4. 1 4. 1	6. 6 6. 4 6. 0 5. 8 5. 8	6. 6 6. 4 6. 2 6. 4 6. 6	7. 7 7. 7 7. 7 7. 7 8. 1	6. 6 6. 4 6. 4 6. 0 5. 8	4.5 4.5 4.5 4.5 4.5	5, 8 5, 6 5, 6 5, 6 5, 4	4. 1 4. 0 4. 0 3. 8 3. 8	3. 5 3. 5 3. 7 3. 5 3. 5
26	4.7 4.5 4.5 4.3 4.3	6. 4 5. 6 5. 4 5. 0 4. 9	5. 0 5. 0 5. 0 5. 4 5. 2 5. 8	4. 1 4. 1 4. 0 4. 0 4. 1 6. 6	5. 6 5. 6 5. 4	6. 8 6. 6 6. 4 6. 4 6. 4 6. 2	8. 1 8. 1 8. 8 8. 6 8. 3	5. 6 5. 6 5. 6 5. 6 5. 6 5. 6	4. 5 4. 5 4. 5 4. 5 4. 5	6. 6 6. 8 5. 8 5. 4 5. 2 5. 0	4.3 5.2 4.3 4.1 4.1 4.1	3. 5 3. 5 3. 7 3. 8

## Monthly discharge of Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1926

M. A.	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	12. 5 7. 0 28 7. 7 5. 8 6. 8 6. 6 4. 1	3. 4 4. 3 4. 9 4. 0 5. 0 5. 4 4. 7 5. 6 4. 5 3. 8 3. 8 3. 5	5. 84 4. 89 6. 22 4. 67 7. 01 6. 21 8. 73 6. 45 4. 97 5. 13 4. 69 3. 75	359 291 382 287 389 382 519 397 296 315 288 223
The year.	28	3. 4	5. 70	4, 130

## FALLS CREEK NEAR WHITEWATER, CALIF.

LOCATION.—In NE. ¼ NE. ¼ sec. 33, T. 3 S., R. 3 E., 3¼ miles southwest of Whitewater, Riverside County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—September 1, 1922, to September 30, 1926.

GAGE.—Water-stage recorder on right bank 2¼ miles above junction with Snow Creek.

DISCHARGE MEASUREMENTS.—Made from foot log at gage or by wading.

CHANNEL AND CONTROL.—Channel is composed of boulders and is rough. Trees and brush along each bank collect drift during high stages. Control is a weir just below gage.

EXTREMES OF STAGE.—Not reported.

DIVERSIONS.—None.

REGULATION.-None.

Cooperation.—Record of daily discharge furnished by Southern Sierras Power Co.

Daily discharge, in second-feet, of Falls Creek near Whitewater, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
12 23 45	0.9 .9 .9 7.5 5.1	1.5 1.6 1.6 1.9 1.8	1. 8 4. 0 3. 6 2. 7 2. 4	2. 2 1. 9 1. 8 1. 8 1. 7	2.0 1.7 2.1 1.9 1.8	1. 6 1. 6 1. 6 1. 8 1. 9	1. 7 1. 8 1. 7 1. 8 8. 2	5. 5 7. 5 6. 0 5. 2 5. 2	3. 0 3. 0 3. 0 3. 0 3. 0	2. 4 2. 4 2. 4 2. 4 2. 3	2. 4 2. 4 3. 1 3. 3 3. 1	2.3 2.3 2.2 2.2 2.1
6	4.6 3.0 2.4 2.1 2.0	1.8 1.8 1.8 1.8	2.3 2.1 2.0 2.0 1.9	1.6 1.6 1.6 1.6 1.6	1. 7 1. 7 1. 7 1. 6 1. 6	1.8 1.9 2.0 2.0 1.9	21 12.9 13 9.8	5.0 4.7 4.5 4.2 4.2	2.9 2.8 2.8 2.7 2.7	2.3 2.2 2.3 2.4 2.4	4. 9 4. 6 3. 0 2. 7 2. 6	2. 2 2. 3 2. 4 2. 4 2. 3
11	1.8 1.8 1.8 1.7 1.7	1.7 1.8 1.7 1.6 1.6	1.8 1.8 1.8 1.8 1.8	1. 6 1. 6 1. 6 1. 6 1. 6	1.6 2.4 3.3 2.8 2.6	1.8 1.7 1.6 1.6		4. 2 4. 2 4. 1 3. 9 3. 8	2.6 2.8 3.0 2.9 2.8	2.4 2.4 2.3 2.2 2.2	2.5 2.5 2.5 2.4 2.4	2. 2 2. 2 2. 1 2. 2 2. 2
16	1. 6 1. 6 1. 6 1. 5 1. 5	1.7 1.7 1.7 1.7 1.7	1.7 1.7 1.8 1.8 1.8	1.6 1.6 1.6 1.6	2.4 2.3 2.2 2.1 1.9	1.8 1.7 1.7 1.8 1.8	9.0	3.9 3.9 4.0 4.1 4.0	2.8 2.9 2.9 2.9 2.9	2. 2 2. 4 2. 6 2. 6 2. 4	2.3 2.3 2.4 2.4 2.4	2.2 2.3 2.0 2.2 2.1
21 22 23 24 25	1. 4 1. 5 1. 5 1. 4 1. 4	1.7 1.7 1.7 2.0 2.3	1.8 1.8 1.8 1.8 1.8	1.5 1.5 1.5 1.5 1.5	1.8 1.8 1.8 1.7 1.7	1.8 1.8 1.7 1.7 1.7	5. 4 5. 6	3. 9 3. 6 3. 8 3. 7 3. 6	2.8 2.8 2.7 2.8 2.6	2. 4 2. 4 2. 4 2. 4 2. 3	2.4 2.4 2.4 2.4 2.4	2.1 1.8 1.7 1.8 2.2
26	1. 4 1. 4 1. 4 1. 4 1. 4 1. 5	2.0 1.9 1.9 1.8 1.8	1.6 1.7 1.8 1.8 1.8 2.2	1.5 1.5 1.5 1.5 2.0	1. 6 1. 7 1. 7	1.8 1.7 1.7 1.7 1.7 1.7	5. 6 5. 6 5. 8 5. 7 5. 3	3.5 3.5 3.5 3.5 3.5 3.5	2.5 2.6 2.5 2.4 2.4	2.5 2.6 2.5 2.4 2.3 2.2	2.5 2.5 2.4 2.4 2.4 2.3	2.4 2.6 2.6 2.6 2.7

Note.—Gage-height record Apr. 10-23 lost in-flood; braced figure shows estimated mean disoherge for period.

Monthly discharge of Falls Creek near Whitewater, Calif., for the year ending September 30, 1926

	Discha	arge in second	l-feet	Run-off in
Month .	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	2.3 4.0 2.2 2.3 3.3 2.0 21 7.5 3.0 2.6 4.9	0.9 1.5 1.6 1.5 1.6 1.7 3.5 2.2 2.3 1.7	1. 99 1. 77 2. 02 1. 63 1. 97 1. 75 7. 90 4. 25 2. 78 2. 37 2. 67 2. 23	122 105 124 100 109 108 470 261 165 146 164
The year		. 9	2. 77	2, 010

#### OWENS LAKE BASIN

## OWENS RIVER AT PLEASANT VALLEY, NEAR BISHOP, CALIF.

LOCATION.—In NW. ¼ sec. 24, T. 6 S., R. 31 E., 1,000 feet above Owens River Canal intake, 1½ miles east of Round Valley, and 8 miles northwest of Bishop, Inyo County. Rock Creek enters 2 miles above.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 9, 1918, to September 30, 1926.

GAGE.—Water-stage recorder on right bank 1,000 feet above Owens River Canal intake

DISCHARGE MEASUREMENTS.—Made from cable 25 feet above gage or by wading. Channel and control.—Bed of stream rock and gravel. One channel at all stages, straight above and below gage. Banks high and clean, edge of lowwater channel covered with young willows.

EXTREMES OF DISCHARGE.—1918-1926: Maximum mean daily discharge recorded, 1,210 second-feet June 21, 1918; minimum, 98 second-feet December 26, 1921.

Diversions.—Water diverted for irrigation from Rock Creek and Pine Creek above gage.

REGULATION.—No information.

COOPERATION.—Daily discharge record and list of discharge measurements furnished by city of Los Angeles.

Discharge measurements of Owens River at Pleasant Valley, near Bishop, Calif., during the years ending September 30, 1918-1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
1010	E a at	Can ff	1000	Wood	G #	1094	Foot	Sea #
1918	Feet	Secft.	1922	Feet	Secft.	1924	Feet	Secft.
Mar. 15	3. 33	244	Mar. 29	3. 01	297	July 23	2. 14	119
May 15	3.10	246	May 27	3.86	463	Aug. 13	2. 11	116
June 21	6.47	1, 220	June 8	5. 34	992	Sept. 3	2.50	123 135
Aug. 10	2.92	208	June 10	5.09	835	Sept. 23	2. 31	
Sept. 18	3.00	226	June 20	5. 70	940	Oct. 14	2.49	145 166
1010			July 6	5, 50	977	Oct. 30	2.65	163
1919	200	00=	July 22	4. 27	600	Nov. 21	2.78	186
Jan. 16.	2.98	237	Aug. 7	3. 27	333	Dec. 11	2.66	186
Feb. 26	3.08	246	Sept. 2	3, 11	288	100	1	<b>!</b>
Mar. 15	3.08	243	Sept. 26	2.84	236	1925	0.00	109
Apr. 1	3. 77	379	Nov. 4	2.98	210	Jan. 8	2.66	162
May 30	5.74	990	Dec. 7	2, 88	203	Jan. 28	2.82	203 191
June 26	3. 26	339	1000			Feb. 18	2. 70	
July 23	2.92	212	1923			Mar. 16	2. 51	168
Aug. 27	2.71	186	Jan. 12	3.16	239	Apr. 9	2.66	158
		,	Feb. 5	3. 17	246	Apr. 15	2.54	141
1920			Feb. 24	3. 63	334	May 8	2.84	169
Mar. 1	3.18	244	Mar. 8	3. 28	281	May_29	3.46	279
Mar. 3	3.14	241	Mar. 29	2.97	215	Do	3.40	275
Aug. 15	2.74	202	Apr. 14	2.87	200	June 17	3. 43	285
Aug. 27	3.10	240	May 12	3.04	236	July 2	4. 62	583
Sept. 25	2.70	174	May 22	3.78	387	July 17	3.58	308
Oct. 2	2.60	177	June 15	3. 68	378	Aug. 5	3.00	203
Oct. 22	2.90	223	June 26	3. 28	306	Aug. 24	2. 70	162
Do	2.95	244	July 9	3.81	421	Sept. 25	2.86	165
Oct. 30	2.86	189	Aug. 13	3. 20	275	Oct. 8	3.00	181
Dec. 16	3.06	191	Sept. 4	2.98	246	Oct. 29	3. 01	188
			Sept. 19	2.92	226	Nov. 19	3.05	178
1921			Oct. 6	2.96	223	Dec. 8	3.11	187
Jan. 8	3.06	189	Oct. 30	3.06	220		ł	
Feb. 23	3.14	213	Nov. 10	3.37	290	1926		- 40
Mar. 23	2, 92	183	Dec. 4	3.00	211	Jan. 20	2.81	148
May 27	3. 28	254	1			Feb. i6	3.12	184
June 18	4.11	513	1924			Mar. 12	3.46	251
July 1	4. 20	564	Jan. 10	3.03	208	Mar. 30	3.06	177
July 18	3.88	402	Jan. 24	2. 94	189	Apr. 20	2.95	187
July 30	3.37	266	Feb. 7	3. 01	229	May 4	3.49	291
Aug. 25	2.96	192	Feb. 27	2.80	195	May 27	3.68	333
Sept. 13	3.00	210	Mar. 19	2.98	221	June 8	4.16	469
Oct. 23	2.69	173	Apr. 7	2.75	190	June 29	3.14	231
Nov. 8	2.68	200	Apr. 29	2. 65	164	July 13	2.94	184
			May 14	2. 57	166	Aug. 3	2. 59	147
1922			June 2	2.44	155	Aug. 18	2, 54	141
Jan. 12.	2.82	227	June 20	2.30	129	Sept. 1	2. 58	137
Feb. 25	2.88	261	July 3	2. 29	135	Sept. 30	2. 75	152
			ŀ		<u>                                     </u>	<u> </u>	<u> </u>	<u> </u>

Daily discharge, in second-feet, of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918-1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1918 1							491 551 453 355 401	272 277 282 300 318	272 291 310 342 375	586 558 529 502 474	260 254 248 240 233	229 223 217 211 205
6 7 8 9 10						315 322	447 408 370 458 436	308 298 288 278 267	446 518 580 643 732	460 447 414 380 365	226 219 216 214 212	199 193 195 197 199
11						330 320 310 301 303	415 392 370 345 320	260 253 252 250 248	820 943 1, 070 1, 190 1, 190	350 335 320 312 303	210 208 226 244 240	200 208 217 226 226
16						309 315 348 380 362	305 291 282 272 274	255 262 258 253 260	1, 160 1, 130 1, 140 1, 150 1, 180	300 296 294 291 291	235 232 230 229 228	22 <b>7</b> 228 228 217 212
21						345 345 345 356 367	277 282 286 282 277	268 275 282 290 298	1, 210 1, 140 1, 070 995 923	291 272 253 250 248	226 225 224 222 221	206 214 222 230 239
26						378 390 400 410 420 431	277 277 262 267 270	299 300 300 301 301 286	851 779 702 637 614	242 235 243 251 259 267	220 219 225 230 232 235	280 321 362 403 444
1918-19 1 2 3 4 5	532 620 558 496 458	261 260 258	282 277 272 272 272 272	192 178 204 230 227	230 229 228 227 226	228 222 217 218 220	408 435 435 435 435 385	311 331 352 372 386	635 588 541 518 495	246 245 246 248 250	174 185 196 223 250	172 171 168 164 169
6	420 398 375 369 363		272 272 272 272 264 256	224 221 218 215 219	240 253 252 251 250	222 224 226 217 208	335 294 252 266 280	400 413 415 412 410	492 489 474 460 436	252 254 256 266 276	276 228 181 190 200	174 179 184 181 178
11 12 13 14 15	343 323 332 341 350		248 249 250 249 248	223 222 222 220 217	242 235 238 241 243	222 235 242 248 226	288 295 278 262 262	410 425 430 442 454	412 388 364 345 325	276 275 278 280 271	206 202 199 198 196	178 179 180 181 181
16	339 328 312 296 290		249 250 247 244 240	222 228 235 242 248	246 248 226 204 217	226 226 229 232 235	262 262 258 255 252	466 478 489 478 466	305 285 265 276 288	262 255 248 247 246	201 206 210 214 210	181 181 181 182 183
21	284 278 272 270 267		237 244 228 213 228	246 244 242 239 237	230 232 235 266 222	238 241 244 247 250	248 245 246 247 248	535 593 623 653 703	284 280 303 326 301	245 245 218 199 186	206 205 204 195 187	182 180 177 174 174
26	270 272 267 262 262 262		244 217 248 234 220 206	235 228 222 222 222 222 226	244 239 234	253 260 267 315 348 380	255 262 277 292 307	753 804 854 963 980 808	276 270 265 256 248	174 194 214 198 181 174	186 186 185 184 179 174	174 185 196 208 201
1919–20 1 2 3 45	194 187 200 214 212	214 221 228 224 220	292 275 258 260 262	236 234 231 236 241	265 266 267 274 280	262 258 255 260 265	299 295 280 265 258	186 186 189 192 194	512 516 521 520 518	347 341 335 336 338	262 259 256 259 262	212 217 232 248 246

Daily discharge, in second-feet, of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918-1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1919-20 6	211 204 196 196 196	222 223 225 226 227	256 251 252 254 255	228 214 208 202 212	266 251 250 249 248	280 296 302 308 315	251 248 246 244 241	196 216 236 234 233	544 570 588 605 595	339 328 318 310 301	245 228 233 238 238 233	243 224 206 206 205
11	196 197 197 197 197	228 230 232 234 234	252 248 240 231 234	222 236 250 265 253	250 252 255 258 260	322 332 342 351 310	250 258 240 222 220	232 231 238 246 247	585 560 535 520 506	285 269 274 280 272	228 222 217 205 193	202 199 194 190 188
16	198 198 198 198 199	236 237 238 239 240	236 231 226 244 262	241 242 244 246 247	262 262 262 262 262 262	269 267 265 280 296	219 224 229 232 234	248 255 262 312 362	494 483 494 504 540	263 268 272 248 224	188 184 184 184 188	187 186 186 185 184
21 22 23 24 25	200 201 202 202 211	241 242 243 244 246	260 258 256 253 250	248 250 252 254 255	262 256 250 245 239	283 270 258 282 307	216 199 198 198 192	364 367 370 372 366	576 573 570 530 489	228 231 248 265 252	192 190 187 227 267	182 179 195 211 202
26	220 222 224 222 220 217	246 245 244 243 268	248 245 242 240 238 238	258 260 262 273 284 274	233 240 246 254	276 256 304 364 334 303	186 186 187 186 186	360 392 425 464 504 508	466 433 422 412 380	238 222 205 196 187 224	258 248 232 216 211 206	193 188 183 181 179
1920-21 1 2 3 4 5	180 180 190 200 192	190 190 190 191 191	202 194 186 178 169	222 225 223 255 230	216 220 225 202 180	350 335 325 292 265	176 174 170 165 166	173 177 178 183 187	293 291 289 291 320	570 582 582 550 470	220 230 220 205 213	171 192 205 195 192
6	185 202 220 216 211	191 216 240 232 225	187 205 201 197 204	220 200 208 196 177	212 205 230 217 215	248 243 235 230 230	174 170 170 165 163	207 222 205 202 202	430 590 740 840 985	425 400 365 355 335	199 207 235 310 266	177 173 186 177 173
11 12 13 14	212 212 210 207 210	228 232 244 259 252	211 208 204 200 196	162 178 202 213 210	225 232 245 242 230	225 215 230 255 245	159 158 214 227 193	212 228 242 295 287	1, 060 1, 170 1, 180 1, 070 950	340 330 338 325 295	260 239 215 205 218	199 197 173 184 173
16	212 217 222 224 227	245 238 233 228 223	192 194 197 186 176	210 213 235 223 210	218 213 210 205 205	230 216 202 193 190	180 177 171 165 153	270 297 280 289 269	660 620 500 450 425	330 406 422 354 302	203 203 209 195 186	161 159 148 147 140
21	230 233 224 216 205	218 215 212 210 207	188 200 204 208 212	223 213 213 225 223	213 205 216 227 250	205 195 195 206 195	152 156 150 152 167	353 340 410 345 265	430 525 625 610 655	324 354 377 337 302	182 188 201 193 182	138 140 140 132 124
28	197 189 189 190 190	210 212 207 202 202	216 219 221 223 226 228	226 225 225 217 214 218	275 295 335	177 194 194 182 175 172	165 166 165 172 167	250 248 287 287 295 308	647 670 662 625 585	266 241 245 243 250 247	181 184 175 186 182 179	124 124 124 128 130
1921-22 12 23 45	170 172 175 183 187	185 188 200 204 204	218 200 165 180 185	331 319 250 241 244	203 199 205 230 256	230 247 253 244 224	327 338 396 472 429	238 232 240 250 266	786 791 804 843 882	1, 010 958 948 951 962	464 491 563 424 385	358 333 288 286 286
6	196 203 190 185 182	200 202 202 202 202 200	180 175 182 185 182	230 247 230 215 221	230 238 258 288 221	247 241 224 238 230	328 321 312 303 304	270 284 288 260 244	905 919 895 860 854	965 916 851 818 772	365 345 330 360 333	241 244 247 250 248

Daily discharge, in second-feet, of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918-1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1921-22												
11	184	199	187	215	244	224	355	232	809	740	308	246
12	183	200	191	187	122	203	325	228	772	743	290	250
13	181	185	202	183	181	276	264	248	727	731	274	246
14 15	174 174	190 191	212 199	191 213	293 282	258 241	315 286	272 292	732 691	727 646	264 260	242 244
16	173	180	188	218	302	250	258	305	739	651	254	244
17	174	168	172	256	319	244	220	328	800	646	250	240
10	173	160	199	105	311	238 235	225 295	358 378	857 905	640 634	242 236	244 244
16	172 174	185 199	175 310	102 163	302 290	232	388	392	951	628	242	248
21	174	205	235	199	288	232	405	380	979	622	254	250
22	174	235	235	211	261	215	395	365	962	595	246	250
23	176	252	225	227 224	256	224	509	408	909	545	246 258	262 254
24 25	192 196	220 204	220 178	227	244 241	256 264	488 388	452 506	919 979	503 455	284	246
26	200	205	98	227	258	273	388	491	1,040	420	290	238
27	193	208	180	230	258	273	348	482	1, 100	392	305	239
23	210	220	210	203	235	273	302	518	1, 120	370	315	240
29	212	208	226	193		290	272	551	1,060	350	365 358	241 242
30	211 194	218	252 285	171 207		351 368	254	595 662	1,040	362 405	328	242
1922-23	101		200	201		800		002		100	<b></b>	
1	242	226	240	244	252	330	206	182	290	448	284	223
2	241	219	240	257	236	320	198	180	306	501	266	216
3	235.	210	244	247	247	284	202	185	278	510	252	223
4	233	215	240	262	254	239	206	185	268	514	244	239
5	231	227	238	264	252	255	206	188	272	488	242	237
6	229	229	246	257	246	302	252	196	276	491	241	232 214
<i>7</i>	226	233	225	252	239	322	264	199	282	494	228	223
0	219 216	248 245	243 239	246 241	241 236	302 280	262 212	209 216	294 315	447 391	230 223	225
6 7	212	241	260	239	207	246	241	230	392	361	219	223
11	211	245	223	242	190	282	296	240	460	361	217	226
12	215	246	223	246	172	292	218	256	466	361	237	230
13	216	249	233	226	154	294	202	260	450	363	286	262 270
14 15	208 216	244 248	221 255	228 230	200 272	264 254	199 196	260 270	408 382	413 491	261 248	255
16	219	249	256	226	272	270	198	296	398	438	255	237
16 17	217	252	260	233	304	314	206	340	365	383	266	216
18	217	244	255	252	312	304	215	370	330	330	271	219
18 19	216	238	251	257	310	296	225	375	304	306	284	232
2)	216	238	252	264	298	296	182	388	<b>34</b> 5	290	271	230
21	217	237	<b>24</b> 6	262	336	258	186	466	315	288	262	228
22	216	233	246	257	360	242	194	405	296	299	250	219
23	219	226	233	250	358	244	193	385	295	306	237 230	228 226
24 25	219 219	226 226	243 252	278 262	368 374	247 234	201 207	375 370	294 292	306 295	226	230
26	220.	228	246	247	340	220	206	353	290	295	221	242
27	221	231	249	231	302	218	206	343	312	295	217	224
23	219	234	228	230	322	215	193	345	350	284	217	211
29	216	239	233	241		215	188	338	380	286	230 226	200 193
30	219 225	231	255 255	244 247		209 207	184	318 292	420	295 310	225	150
1923-24	220		200							3-0		
1	190	225	215	165	224	210	196	158	147	106	132	128
2	192	221	205	152	229	214	192	160	141	116	130	133
3	194	225	220	215	234	192	187	167	145	132	131	130
5	192 190	219 219	215 217	237 215	254 260	193 194	180 178	165 163	140 133	140 135	134 132	127 134
	197	219	224	215	277	195	182	163	125	132	130	131
6	226	219	250	219	260	196	187	163	125	132	130	128
8	241	225	207	223	260	158	181	165	130	134	130	130
9	230	250	158	203	292	165	169	163	129	134	127	128
10	215	297	160	219	251	172	172	169	130	138	127	130
11	206	245	186	217	225	178	171	171	125	135	127	131
12	200 202	232 232	212 239	211 209	231 240	180 183	167 174	163	120 120	139 137	121 117	130 125
13												
13	204	230	232	205	247	186 189	176	163 163	123	139	116	130

Daily discharge, in second-feet, of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918-1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1923–24 16	197 196 198 200 202	226 226 228 226 226 228	224 219 217 217 211	213 202 200 198 196	238 238 240 238 236	185 180 174 242 230	162 189 181 180 178	151 147 158 162 162	119 117 106 109 116	113 123 127 125 127	118 120 121 121 121	127 127 125 124 123
21	207	220	207	194	231	217	174	174	113	131	125	125
	209	219	185	200	214	205	162	183	110	128	131	128
	207	220	187	200	218	208	160	187	106	121	126	131
	211	217	211	200	210	234	158	174	101	118	124	131
	219	215	217	202	203	234	156	155	102	123	122	127
26	223 225 225 225 223 223 225	212 210 207 220 232	219 177 200 226 202 155	207 209 211 211 213 219	196 201 204 207	248 262 240 238 205 208	154 165 174 172 169	151 152 150 148 146 145	106 110 109 110 106	131 130 130 128 128 128 132	119 118 120 123 123 125	128 133 136 138 141
1924-25	140	167	186	218	190	172	178	148	256	495	194	163
1	140	194	186	197	207	179	184	137	201	588	220	158
2	136	222	186	191	213	170	158	139	220	534	248	167
3	130	192	186	185	211	176	158	164	208	482	216	175
4	134	192	192	180	247	177	182	168	192	439	198	165
6	134	192	184	178	285	167	280	154	190	417	189	161
7	156	186	216	167	250	162	210	162	181	385	180	157
8	144	180	216	167	202	149	170	173	166	348	188	156
9	141	184	218	168	177	146	148	183	148	318	210	157
10	137	246	210	168	186	159	144	183	145	293	298	156
11	152	335	226	159	177	147	150	197	145	295	272	153
12	152	260	204	166	194	147	145	188	146	280	254	152
13	160	216	198	162	192	148	140	190	172	271	234	154
14	154	198	204	168	187	150	140	201	224	263	216	158
15	144	212	204	166	197	146	142	180	256	267	206	156
16	156	212	202	158	197	147	147	159	268	305	195	150
	162	214	200	171	194	140	167	159	276	292	180	152
	155	198	174	170	190	147	156	151	274	311	172	153
	161	214	155	175	190	153	147	152	276	411	168	158
	164	208	144	178	197	162	140	162	296	436	166	157
21	167	230	164	177	190	175	158	159	323	400	162	159
	161	212	196	180	194	194	198	146	341	348	158	163
	161	208	206	184	194	184	169	150	333	290	161	163
	156	204	178	194	188	151	166	142	355	261	164	165
	150	192	142	202	183	148	162	143	372	235	158	168
26	154 162 156 192 162 162	188 186 180 192 188	142 143 172 224 280 264	192 188 198 209 220 209	188 179 172	142 137 134 138 151 162	166 161 161 164 165	169 194 228 280 286 280	394 414 444 439 450	210 205 190 176 188 186	163 169 158 166 155 169	169 161 169 170 175
1925–26 1	176 175 172 177 184	187 189 190 189 183	201 210 194 184 187	170 172 173 170 172	179 180 189 189 188	189 186 188 189 192	159 158 156 152 216	286 274 276 292 350	385 416 410 392 385	218 193 177 164 169	134 141 148 154 172	136 135 136 141 142
6	190	186	193	177	184	189	240	335	368	193	199	138
7	186	192	190	175	183	201	193	294	362	210	216	139
8	187	195	186	173	182	206	255	272	455	199	206	146
9	187	196	187	175	180	221	258	266	630	231	204	146
10	192	200	179	170	179	223	232	254	530	263	199	146
11	195	206	179	162	177	223	210	236	440	230	177	139
12	196	199	173	159	194	248	220	223	388	204	169	142
13	196	194	170	154	192	258	201	225	360	184	158	138
14	200	184	154	162	192	290	186	223	335	184	148	135
15	196	180	158	161	187	305	190	236	312	163	140	139
16	193 190 190 190 189	182 184 183 182 179	169 173 177 175 177	155 161 162 156 155	186 172 189 189 190	353 374 295 322 307	199 210 215 211 194	254 294 315 425	298 282 272 254 240	154 161 171 168 153	140 145 149 149 145	143 141 144 140 142

Daily discharge, in second-feet, of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918-1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1005 06												
1925-26												٠
21	187	173	182	156	186	284	194	458	228	137	154	140
22	187	173	187	162	184	277	198	476	232	134	154	140
23	189	180	191	166	183	270	206	451	222	134	153	150
24	189	183	187	160	188	261	216	443	234	134	152	152
25	187	183	183	165	188	252	242	422	213	124	149	151
26	186	190	182	151	190	210	248	378	203	128	148	154
27	184	191	184	153	189	198	282	335	208	131	140	154
28	186	191	182	160	188	184	298	315	220	127	141	154
29	187	191	179	210	100	184	286	308	227	130	138	152
30	187	191	176	174	J	174	278	330	234	129	136	154
31	187	191	173	177		169	210	358	204	133	136	101
01	101		110	111		105		300		100	100	

Monthly discharge of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918–1926

Month	Discha	arge in secon	l-feet	Run-off in
Money	Maximum	Minimum	Mean	acre-feet
1918			,	,
March 9-31	431	301	352	16, 100
April	551	262	346	20,600
May	318	248	279	17, 200 48, 400
June	1, 210	272	813	70, 700
July	586	235	343	21, 100
August	260	208	228 239	14,000
September	444	193	239	14, 200
The period				152, 000
1918-19				
October	620	262	349	21, 500
November			a 264	15, 700
December	282	206	249	15, 300
January	248	178	225	13, 800
February.	266	204	237	13, 200
March.	380	208	244	15,000
April	435	245	294	17, 500
May	980	311	536	33,000
June	635	248	373	22, 200
July	280	174	239	14, 700
August	276	174	201	12, 400
September	208	164	180	10, 700
The year	980		283	205, 000
1919–20				
October	224	187	204	12, 500
November	· · 268	214	235	14,000
December	292	226	250	15, 400
January	284	202	244	15, 000
February	280	233	256	14, 700
March	364	255	293	18,000
April	299	186	230	13, 700
May	508	186	296	18, 200
June	605	380	519	30, 900
July	347	187	272	16, 700
August	267 248	184	223 201	13, 700 12, 000
September	605	179	268	195,000
1920-21				100,000
October	233	180	206	12, 700
November	259	190	218	13, 000
December	228	169	201	12, 400
January	255	162	214	13, 200
February	335	180	227	12,600
March	350	172	227	14,000
April	227	150	170	10, 100
May	410	173	258	15, 900
June	1, 180	289	640	38, 100
July	582	241	363	22, 300
August	310	175	209	12, 900
September	205	124	161	9, 580
The year	1, 180	124	258	187, 000

<sup>•</sup> Estimated.

Monthly discharge of Owens River at Pleasant Valley, near Bishop, Calif., for the years ending September 30, 1918-1926—Continued

	Discha	rge in second	-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
1921-22				
october	212	170	185	11,40
Tovember	252	160	201	12,00
)ecember	310	98	201	12, 40
anuary	331	102	215	13, 20
ebruary	319	122 203	251 252	13, 90 15, 50
farchpril	368 509	203	340	20, 20
lay	662	228	355	21, 80
ine	1, 120	691	888	52, 80
ıly	1,010	350	676	41,60
ugust	563	236	320	19, 70
eptember	358	238	256	15, 20
The year	1, 120	98	345	250, 00
1922-23 ectober	242	208	221	13, 60
Vovember	252	210	235	14,00
December	260	221	243	14, 90
anuary	278	226	247	15, 20
ebruary	374	154	273	15, 20
farch	330	207	266	16, 40 12, 60
pril	296 466	182 180	211 291	17.90
10e	466	268	338	20, 10
uly	514	284	375	23, 10
.ugust	286	217	244	15, 00
eptember	270	193	228	13, 60
The year	514	154	264	192, 00
1923-24	-	100		10.00
October	241	190	209 226	12, 90 13, 40
Vovember	297 250	207 155	208	12, 86
anuary	237	152	206	12, 70
ebruary	292	196	235	13, 50
Aarch	262	158	204	12, 50
.pril	196	154	174	10,40
May	187	145	161	9,90
une	147 140	101 106	120 129	7, 14 7, 98
uly lugust		116	125	7, 69
eptember	141	123	130	7,74
The year	297	101	, 177	129, 00
1924-25				
October	192	130	153 207	9, 41
Vovember	335 280	167 142	194	11, 9
Decemberanuary	220	158	182	11, 20
Pebruary		172	199	11, 10
March	194	134	157	9,6
April	. 280	140	165	9,8
May	286	137 145	178 270	10, 90
une	450	176	326	20, 0
uly lugust		155	193	11, 9
eptember		150	161	9, 5
The year	. 588	130	199	144, 0
1925-26		]	,,,,	11.0
October	. 200	172	188 188	11, 6 11, 2
November December	. 200		181	11.1
anuary			166	10.2
Pebruary	. 194	172	186	10, 3
Aarch	374	169	239	14.7
\pril	. 298	152	217	12, 9 19, 7
May	476	223	321	19, 7
une	630 263	203 124	324 169	
uly			158	9,7
August September	154		144	
	., -0-			
	630	124	207	150, 0

## OWENS RIVER NEAR BIG PINE, CALIF.

LOCATION.—In sec. 2, T. 11 S., R. 34 E., at Charlies Butte, 11 miles southeast of Big Pine, Inyo County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 20, 1906, to September 30, 1926.

GAGE.-Water-stage recorder on left bank.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Sand and gravel; shifts slightly. Right bank high; left bank subject to overflow during floods.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge during year, 521 second-feet June 11; minimum, 51 second-feet September 17 and 18.

1906-1926: Maximum stage recorded, 11.2 feet about 9 p. m. January 26, 1914 (discharge, from extension of rating curve, about 3,220 second-feet); minimum, -0.05 foot June 13-16, 1908 (discharge, 36 second-feet).

ICE.—Stage-discharge relation not affected by ice.

Diversions.—On account of diversions above station, record does not indicate total run-off from drainage area.

REGULATION.—Flow is partly regulated by diversions.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve fairly well defined. Good record from water-stage recorder. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method. Records good.

Cooperation.—Gage-height record and discharge measurements furnished by city of Los Angeles.

Discharge measurements of Owens River near Big Pine, Calif., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 6	Feet 1. 65 2. 08 2. 20 2. 21 2. 25 2. 40 2. 47 2. 45 2. 34 2. 50 2. 45 2. 45 2. 45	Secft. 161 239 244 237 242 269 264 262 261 274 273 260	Jan. 26. Feb. 3. Feb. 10. Feb. 19. Feb. 26. Mar. 5. Mar. 16., Mar. 22. Apr. 1. Apr. 9. Apr. 23.	Feet 2. 48 2. 81 2. 83 2. 70 2. 53 2. 59 3. 10 2. 80 2. 20 2. 15 1. 58 1. 52	Secft. 285 323 316 305 271 285 383 293 216 218 143	May 11	Feet 1. 14 1. 44 2. 62 3. 80 2. 15 1. 45 1. 36 1. 00 1. 12 . 76 . 60 . 92	Secft. 95 133 309 522 212 134 124 89 95 67

## Daily discharge, in second-feet, of Owens River near Big Pine, Calif., for the year ending September 30, 1926

	,											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1 2	127 135 143 146 154	238 238 242 242 242 242	270 282 287 283 270	273 271 270 266 264	356 342 329 351 346	285 283 287 287 287	213 208 206 202 202 202	130 130 141 133 124	322 355 373 375 371	173 172 163 156 150	80 83 83 77 78	56 55 53 53 54
6 7 8 9	161 169 179 184 193	245 259 270 275 270	270 276 273 256 256	261 263 263 259 259	335 329 319 310 314	287 287 290 298 312	220 263 240 218 264	127 139 127 116 102	373 368 364 398 460	149 146 148 - 134 - 153	88 102 99 102 104	56 59 57 57 57
11	202 211 220 229 238	273 288 283 273 270	258 259 261 263 256	259 253 250 237 243	314 321 370 394 381	322 324 333 349 375	234 222 213 202 183	95 91 · 85 73 69	521 479 436 416 394	183 180 158 149 143	100 93 83 79 80	56 57 57 57 57

Daily discharge, in second-feet, of Owens River near Big Pine, Calif., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16 17 18	250 251 254 253	263 258 259 264	254 263 270 270	251 245 248 250	353 328 298 305	400 422 438 454	167 154 145 150	73 76 81 106	356 319 288 237	126 115 112 113	78 73 76 77	54 51 51 55 57
20	246 251 250 245 240	261 263 261 259 259	275 270 268 276 283	242 240 243 273 282	302 297 290 285 275	498 432 295 322 322	156 149 144 133 114	106 108 106 117 130	222 214 206 202 196	117 108 102 98	79 78 80 80 78	58 61 65 67
25	240 240 237 238 238	264 268 270 270 273	283 276 276 275 270	285 285 282 282 312	273 271 283 285	300 314 292 270 248	108 100 103 100 112	134 125 153 218 208	196 189 182 172 174	97 96 92 86 84	75 72 69 66 64	73 87 96 94 89
30 31	240 238	273	271 271	370 379		237 226	121	226 263	179	80 79	62 58	95

Monthly discharge of Owens River near Big Pine, Calif., for the year ending September 30, 1926

<b>35</b> 4b	Discha	rge in second	-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November December January February March April May June July August September	287 379 394 498 264 263 521 183	127 238 254 237 271 226 100 69 172 79 58 51	213 262 270 270 320 325 175 126 311 128 80. 5 63. 1	13, 100 15, 600 16, 600 17, 800 20, 000 10, 400 7, 750 18, 500 7, 870 4, 950 3, 750	
The year	521	51	211	153, 000	

## ROCK CREEK AT SHERWIN HILL, NEAR BISHOP, CALIF.

LOCATION.—In SW. ¼ SW. ¼ sec. 29, T. 5 S., R. 31 E., at Sherwin Hill, 5 miles northwest of Round Valley and 14 miles northwest of Bishop, Inyo County. Pine Creek enters 3 miles below the station.

Drainage area.—Not measured.

RECORDS AVAILABLE.—August 1, 1922, to September 30, 1926. A station was maintained 3 miles below, just above mouth of Pine Creek, from August 3, 1903, to November 10, 1923.

Gage.—Water-stage recorder on left bank just above a brush dam and ditch supplying water for a small generator and a hydraulic ram.

DISCHARGE MEASUREMENTS.—Made from plank bridge at gage or by wading.

Channel and control.—Brush dam acts as control. One channel at all stages, slightly curved above and below gage.

Extremes of discharge.—1922-1926: Maximum mean daily discharge recorded, 134 second-feet June 9, 1926; minimum, 2.4 second-feet December 10, 1923.

Diversions.—None above gage.

REGULATION.-None.

Cooperation.—Daily-discharge record and discharge measurements furnished by city of Los Angeles.

Discharge measurements of Rock Creek at Sherwin Hill, near Bishop, Calif., during the years ending September 30, 1922-1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
1922 June 10	Feet	Secft.	1923 Oct. 10	Feet	Secft.	1925 Mar. 17	Feet	Secft.
June 21	a 1. 37	127	Oct. 27	1.51	15	Apr. 10		14
July 12	2, 67	82	Nov. 5		13	May 7		- 44
July 21		93	Dec. 3		16	May 27		- 45
Aug. 9		91	200.011111111	1.01		June 18		49
Aug. 22		28	1924		i l	July 2		- 69
Sept. 6		25	Feb. 8	1.41	9,9	July 16		54
Sept. 26		20	Feb. 28	1.48	14	Aug. 6		34
Nov. 8		16	Mar. 18	1.34	7.8	Aug. 24	1.59	23
Dec. 6	1. 55	16	Apr. 8	1, 50	15	Sept. 21		13
			Apr. 30	1.49	16	Oct. 8	1.46	14
1923	i		May 12	1.72	27	Oct. 29		12
Jan. 8	1.55	15	June 3	1.62	18	Nov. 19	1.44	10
Jan. 25	1.36	12	June 19	1.63	17	Dec. 7	1.46	10
Feb. 7	1.49	13	July 3	1.64	20			
Feb. 21	1.55	17	July 22	1.50	15	1926		
Mar. 7	1.41	13	Aug. 14	1.42	12	Jan. 20		9, 5
Mar. 24	1.54	15	Sept. 4	1. 37	10	Feb. 16		9.3
Apr. 11		17	Sept. 22		10	Mar. 12		11
Apr. 23		14	Oct. 16	1.42	11	Mar. 29		12
May. 9		38	Oct. 31	1.50	8.2	Apr. 21		27 •
May 19	2.01	60	Nov. 21		. 8.5	May 4	1.87	40
June 9		30	Dec. 11	1.67	11	May 27	1.86	39
June 27		32				June 30	1.67	27
July 11		50	1925			Aug. 3	1.50	17
Aug. 3		41	Jan. 7	1.58	12	Aug. 19	1. 51	13
Aug. 21		24	Jan. 28	1. 52	12	Sept. 1	1.55	14
Sept. 6		26	Feb. 19	1, 56	13	Sept. 30	1.44	9, 6
Sept. 20	1.60	17	Do	1.63	18			
				i		i		

a Referred to gage of Sierra Power Co.

Daily discharge, in second-feet, of Rock Creek at Sherwin Hill, near Bishop, Calif., for the years ending September 30, 1922-1926

		•	-									
Day	Aug.	Sept	;.	Day		Aug.	Sept.		Day		Aug.	Sept.
1922 1		3 3	35   12. 32   13. 39   14.	1922		60 42 38 35 32	22 21 20 20 20	22 23 24	1922		26 26 26 26 26 25	22 21 20 20 19
6		2 2 2	4   17. 2   18. 2   19.			31 30 29 28 27	20 21 20 20 21	27 28 29 30			25 27 29 36 42 40	19 19 19 19 19
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1922-23 1	19 18 16 16 17 16 15 15	13 15 17 19 21 23 21 17 17	14 14 15 16 16 17 9 14 20 20	18 18 18 18 18 18 18 18 18	20 39 59 39 19 17 14 18 27 35	18 17 16 17 17 17 14 11 16 14 12	18 18 18 18 18 18 14 9. 5 14 19	20 22 23 24 24 28 32 36 39 43	38 36 34 33 30 28 29 30 32 40	64 74 84 94 104 98 91 80 69 64	45 40 35 32 29 27 25 24	24
11	14 14 14 14	16 14 11 14	20 20 19 17	17 14 10 12	30 26 22 18	14 16 14 11	19 19 19 19	46 49 51 53	49 52 54 49	59 59 56 54	25 29 33	22 21 20 21 21

Daily discharge, in second-feet, of Rock Creek at Sherwin Hill, near Bishop, Calif., for the years ending September 30, 1922-1926—Gontinued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1922-23 16	14 14 14 15 15	11 14 17 16 15	15 14 14 14 14 15	16 19 16 17 18	17 17 18 18 18	12 14 15 16 15	19 20 21 21 21 20	60 66 64 62 60	40 37 33 31 29	57 56 54 49 45	33 31 29 28 28	20 18 18 18 18
21 22 23 24 25	15 14 14 14 14	16 17 13 12 12	16 16 17 17 16	18 17 18 18 8. 5	18 17 17 17 17	15 15 16 17 17	20 18 15 17 18	59 56 53 53 56	29 28 27 26 26	40 43 45 46 47	26 24 24 23 21	16 15 15 14 15
26	14 14 14 12 11 12	17 22 18 14 14	16 16 16 17 17	14 20 20 19 24 29	18 17 16	17 17 18 18 18 18	18 18 18 19 19	62 52 42 43 44 39	27 29 35 45 54	47 47 47 47 47 47	21 21 21 21 19 22	16 15 15 16 16
1923-24 1	15 14 14 15 15	14 14 14 14 14	8, 5 14 19 15 12	20 19 19 18 18	14 13 13 12 12	15 14 13 12 11	15 14 14 12 10	18 20 22 24 24	21 21 21 22 22 25	17 20 21 21 19	17 16 16 15 15	13 11 10 11 10
6	14 14 15 15 15	13 12 14 15 16	15 11 6. 5 4. 4 2. 4	17 16 16 15 15	11 11 11 11 13	10 9. 5 9. 0 10 11	16 16 16 17 17	22 22 22 24 27	32 32 32 30 27	20 22 22 22 22 21	14 14 14 13 13	9. 5 9. 0 9. 0 12
11	14 14 15 14 13	16 16 16 16 16	2. 6 2. 7 5. 0 10 15	13 12 10 9 7.5	15 17 14 12 12	12 16 20 17 14	18 18 19 20 17	28 28 27 26 24	20 22 20 18 17	20 19 19 18 18	13 12 12 12 12	12 11 10 10 10
16	14 14 16 16 16	15 14 15 15 14	9. 5 3. 6 8. 5 14 18	11 15 13 12 15	12 12 12 12 12 12	13 12 10 16 22	13 14 12 13 19	24 25 29 30 31	12 12 14 20 21	17 15 15 15 15	11 11 11 12 13	11 11 10 10 10
21	16 16 16 16 17	13 15 15 15 15	22 27 23 20 20	18 21 18 15 14	12 13 14 14 14	28 34 30 27 23	20 22 22 19 18	33 34 33 29 30	19 18 17 16 17	15 15 15 15 15	12 12 13 13 13	, 10 10 10 9.5 9.5
23	16 16 15 14 14 14	14 13 12 11 9. 5	19 19 20 21 20 20	14 13 13 13 13 14	14 14 14 14 14	20 16 14 12 13 14	18 18 20 20 17	28 27 27 24 22 22	17 17 17 17 17 17	17 17 17 18 19 18	13 18 13 13 13 13	9. 5 9. 5 9. 5 9. 5 9. 5
1924-25 12 34	9. 5 9. 5 9. 5 9. 5 9. 5	9. 0 9. 5 10 8. 0 7. 5	10 11 11 9.5 13	19 19 27 28 20	13 13 14 13 14	12 12 12 13 13	11 14 13 14 14	23 26 28 30 32	42 :3 :3 :1 :1	72 73 72 72 72 67	31 31 35 40 37	16 15 15 16 15
6	9. 5 10 10 10 9. 5	8. 0 5. 5 7. 0 8. 0 9. 5	12 10 12 13 12	20 22 30 26 32	14 13 18 15 11	12 12 12 12 12	14 14 15 15 15	34 44 48 45 32	21 21 20 20 21	62 59 58 56 56	35 33 30 31 31	14 13 13 12 12
11	9. 5 11 13 11 11	8. 5 8. 5 10 14 10	13 12 13 14 13	32 90 38 43 12	15 17 16 16 18	10 14 12 13	16 16 12 13 13	28 25 24 22 20	21 22 26 30 41	53 54 54 50 54	31 31 31 27 27	12 14 14 14 14
16 17 18 19 20	. 10 . 10 10 10 10	9. 0 9. 5 9. 5 8. 5 9. 5	13 13 13 16 9. 5	47 18 12 13	16 14 12 15 13	12 12 12 12 12	16 15 13 15 14	25 26 28 30 29	42 48 41 37 40	54 58 60 67 70	27 26 23 23 24	13 13 12 14 14

Daily discharge, in second-feet, of Rock Creek at Sherwin Hill, near Bishop, Calif., for the years ending September 30, 1922–1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1924-25 21	9. 5 8. 5 8. 0 8. 5 6. 5	9. 5 9. 5 8. 5 7. 5 <b>6</b> . 5	18 27 30 25 27	10 12 12 12 12 12	10 13 13 11 11	12 13 14 12 13	15 15 14 14 13	26 26 26 28 31	49 57 62 67 70	62 •54 49 42 35	23 18 18 20 20	14 14 14 13 13
26	7. 0 7. 5 7. 5 8. 0 9. 5 7. 5	11 12 11 11 10	24 58 43 35 29 20	12 12 12 12 12 12 12	13 12 12	13 13 13 14 11 14	15 14 21 22 22 21	35 39 46 55 62 54	73 62 59 57 55	34 34 33 33 32 31	18 18 16 16 16 18	14 14 13 13 13
1925-26 1	13 13 13 13 13	12 12 12 11 11	10 9. 5 9. 0 9. 0	3. 2 3. 5 4. 8 4. 2 4. 9	6. 0 6. 5 8. 0 9. 5	12 12 11 11 11	13 13 13 13 13 16	35 34 35 42 52	46 65 72 65 62	27 26 25 24 24	15 16 17 17 17	14 13 12 11 11
6 7	14 14 14 14 14	14 16 16 14 14	13 12 12 12 12 12	4.5 4.5 4.1 3.8 4.1	8.5 7.5 8.0 9.0 9.5	10 10 10 9. 5 9. 5	15 16 16 16 17	50 36 22 22 22 20	69 76 106 134 113	25 23 22 25 24	20 24 28 29 28	11 11 11 11 11
11	14 14 14 14 14	13 12 13 13 13	12 17 9.0 9.5 15	3. 8 4. 2 4. 5 6. 0 5. 5	10 12 14 15 12	10 10 10 10 10	18 12 16 20 21	20 22 22 22 22 27	81 63 55 50 44	24 24 23 21 21	26 23 19 16 14	11 10 10 10 10
16	14 14 13 13 12	14 13 14 12 12	15 12 8, 5 10 12	4. 2 5. 5 4. 4 4. 2 8. 5	14 16 24 17 15	11 10 10 11 11	24 28 29 28 28 28	33 48 58 69 96	38 36 31 28 26	26 28 31 30 27	13 12 12 13 13	9. 5 9. 0 9. 0 9. 0 9. 0
21	12 12 12 12 12 12	13 15 14 14 14	9. 5 8. 5 7. 0 6. 5	8. 5 6. 5 5. 0 5. 5 4. 5	13 15 13 16 14	12 13 13 14 14	28 31 35 41 48	101 96 91 76 69	26 27 29 30 31	21 24 23 21 20	13 12 12 12 12 15	9. 0 9. 0 9. 0 9. 5 9. 5
26	12 12 12 12 12 12 12	14 14 13 12 11	5. 0 5. 5 5. 5 4. 9 4. 5 3. 8	4. 5 4. 8 4. 9 4. 6 4. 6 5. 5	14 13 13	13 13 13 13 13 13	56 63 65 67 50	52 40 35 31 32 35	31 31 31 32 30	17 16 15 14 12 12	14 15 18 18 18 18	9. 5 9. 5 9. 5 9. 5 9. 5

Monthly discharge of Rock Creek at Sherwin Hill, near Bishop, Calif., for the years ending September 30, 1922–1926

	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
1922				
August	98	25	44.3	2,720
September	37	19	22.6	1,340
1922-23		••	14.0	200
October	19	. 11	14.6	898
November	23 20	ŀ 1	16.0 16.1	952 990
December		8-5	17.3	
January.		14	22.3	1,060
February March		10	15.3	1, 240 941
April		9.5	18.0	1,070
May		20	45.7	2,810
June		26	35.8	2, 130
July		40	60.3	3,710
August	47	19	27.8	1,710
September		14	19. 5	1, 160
The year	104	8. 5	25. 8	18, 700

Monthly discharge of Rock Creek at Sherwin Hill, near Bishop, Calif., for the years ending September 30, 1922-1926—Continued

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
1923-24				
October	17	13	14. 9	916
November	16	9. 5	14. 2	845
December	27	2,4	13. 8	848
January	21	7.5	14.7	904
February	17	11	12. 9	742
March.	34	9.0	16. 0	984
April	22	10	16. 8	1,000
	34	18	26. 0	1,600
May June	32	12	20. 4	1, 210
July	22	15	18. 0	1, 110
	17	11	13. 1	806
August				
September	13	9.0	10. 2	607
The year	34	2. 4	15. 9	11, 600
1924-25				
	13	6.5	9, 35	575
October	14	5. 5	9. 18	546
November		9.5	18. 7	1, 150
December	58	10	00.0	1, 130
January	47	10		766
February	18		13.8	
March	14	10	12.5	769
April	22	11	14.9	887
May	62	20	33. 1	2,040
June	73	20	39. 7	2, 360
July	73	31	53. 5	3, 290
August	40	16	26. 0	1,600
September	16	12	13. 7	815
The year	73	5, 5	22. 1	16, 000
1925–26				
October	14	12	13. 0	799
November	16	11	13. 2	786
December	17	3.8	9.81	603
January	8.5	. 3.2	4.88	300
February	24	6.0	12. 3	683
March	14	9. 5	11.4	701
April	67	12	28. 5	1,700
May	101	20	45. 9	2,820
June	134	26	51. 9	3,090
July	31	īž	22. 4	1,380
August	29	12	17. 2	1,060
September	14	9.0	10. 2	607
The year	134	3, 2	20. 1	14, 500

## PINE CREEK AT DIVISION BOX NEAR BISHOP, CALIF.

LOCATION.—In NW. ¼ sec. 19, T. 6 S., R. 31 E., a quarter of a mile above the division box and forks of creek, 4 miles west of Round Valley, and 13 miles northwest of Bishop, Inyo County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—October 21, 1921, to September 30, 1926. A station was maintained at the mouth, 3 miles northwest, near Round Valley, from August 3, 1903, to November 10, 1923.

GAGE.—Water-stage recorder on left bank a quarter of a mile above division box and forks of creek.

DISCHARGE MEASUREMENTS.—Made from plank at gage or by wading.

Channel and control.—Large rocks in channel 75 feet below gage act as control.

One channel at all stages; straight above and below gage.

EXTREMES OF DISCHARGE.—1921-1926: Maximum mean daily discharge recorded, 286 second-feet June 20, 1922; minimum mean daily discharge recorded, 13 second-feet during September, October, and December, 1924, and January, 1926.

DIVERSIONS.—None.

REGULATION.—None.

Cooperation.—Daily-discharge record and discharge measurements furnished by city of Los Angeles.

Discharge measurements of Pine Creek at division box near Bishop, Calif., during the years ending September 30, 1921-1926

Date	Gage height	Dis- charge	Date .	Gage height	Dis- charge	Date	Gage height	Dis- charge
1921	Feet	Secft.	1923	Feet	Secft.	1925	Feet	Secft.
		21	June 14		106	Jan. 28		14
Apr. 12 Oct. 22	1 21	17	June 27	2, 29	111	Feb. 19		15
Oct. 29	1. 22	17	July 11	2, 35	110	Mar. 17.	1.11	16
Nov. 27	1. 20	16	Aug. 10	1.70	52	Apr. 10	1. 15	16
1101.21	1.20	10	Sept. 18	1.49	36	May 7	2. 07	76
1922	!		Oct. 27	1, 29	25	May 27	2. 35	104
Jan. 21	1, 11	15	Dec. 8	1. 20	19	June 18	2. 39	107
Mar. 16	1. 22		Dec. 6	1.20	19	July 2	2. 60	129
Apr. 18	1. 24	20	1924			July 16.	2. 32	96
May 27	2. 32	110	Jan. 18	- 1, 15	18	Aug. 6	1.78	49
June 10	2. 90	185	Feb. 8		15	Aug. 24	1.70	46
June 26	3.32		Feb. 28	1.13	15	Sept. 21	1. 70	20
July 11	3.00		Mar. 18		15	Oct. 8	1. 25	19
July 22	2, 50	191	Apr. 8	1. 12	15	Oct. 29	1. 24	17
Aug. 2	1.68		Apr. 30		26	Nov. 19		18
		46				Dec. 7	1. 23	15
Aug. 9		75	May 12	1.75	50	Dec. /	1.19	10
Sept. 27		33	June 3	1.65	44	1926		
Nov. 8		21	June 19	1.31	22		1 10	10
Dec. 8	1. 18	19	July 3	1.31	23	Jan. 20		13
1000	1		July 22	1. 27	21	Feb. 16	1. 18	16
1923			Aug. 14	1.16	18	Mar. 12	1.17	15
Jan. 8		21	Sept. 4	1. 10	15	Mar. 29	1. 19	15
Jan. 27	1. 23	18	Sept. 22	1.08	14	Apr. 21	1.63	39
Feb. 15	1. 19	18	Oct. 16		16	May 4	2.30	94
Feb. 26	1.19	17	Oct. 31	1.11	15	May 27	1.87	56
Mar. 24	1.18	18	Nov. 21	1.12	15	June 30	1.87	51
Apr. 11	1. 20	19	Dec. 11	1.13	15	Aug. 3	1.40	25
Apr. 30	1. 22	23				Aug. 19	1.38	22
May 15	2.03	87	1925			Sept. 1	1. 52	29
May 19	2. 21	106	Jan. 7	1.11	14	Sept. 30	1.26	18
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Daily discharge, in second-feet, of Pine Creek at division box near Bishop, Calif., for the years ending September 30, 1922-1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1921–22 1		17 17 17 17 17	17 17 17 17 17	18 18 18 18 . 18	17 17 17 17 17	17 17 17 17 17	19 19 20 21 20	30 30 31 34 37	179 173 199 216 227	224 230 239 253 253	118 112 103 100 92	54 49 50 49 47
6 7		17 17 17 17 17	17 17 17 17 17	18 18 17 17 17	17 17 17 16 16	17 17 17 17 17	20 20 19 18 18	42 42 42 39 37	224 218 204 191 188	248 221 214 216 204	82 81 80 76 75	47 46 45 41 41
11		17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	15 15 16 18 19	17 17 17 17 17	19 19 18 18 18	37 36 37 40 42	192 197 202 206 210	206 208 206 206 202	70 67 66 66 66	40 <sup>4</sup> 38 <sup>3</sup> 37 37 37
16		17 17 18 17 17	17 17 17 18 18	17 16 14 14 14	18 18 18 18 18	17 17 18 18 18	18 18 18 18 19	45 54 65 73 70	215 232 244 264 286	194 190 191 186 173	65 61 58 56 55	47 36 36 35 35
21 22 23 24 25	17 17 17 17 17	17 18 17 17	18 18 18 17 16	15 17 17 17 17	18 18 17 17 17	19 18 19 19	29 25 23 22 22	71 79 95 112 114	266 248 246 260 266	160 141 139 130 124	53 51 48 52 60	34 34 33 33 33

Daily discharge, in second-feet, of Pine Creek at division box near Bishop, Calif., for the years ending September 30, 1922-1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1921–22	17	17	17	17	17	19	23	105	275	117	62	3
7	17	17	17	16	17	19	24	122	257	119	60	3
8	17	17	17	17	17	19	25	134	230	117	60	3
9	17	17	17	17		19	25	145	224	110	65	3.
0	17	17	18	17		19	26	158	222	111	61	3
1	17		18	17		20		169		114	57	
1922-23	32	34	32	20	18	18	18	21	62	162	83	4
2	32	34	32	20	18	18	18	22	54	181	75	4
3.	32	34	32	20	18	18	18	24	58	173	74	5
4	32	34	32	20	18	18	18	26	61	166	68	4
2 3 4 5	32	34	32	20	18	18	18	31	66	166	69	4
3	31	34	32	19	18	18	18	35	82	157	70	4
·	29 28	34 36	33 32	19	18	18	18 18	42 52	74 85	139 135	66 62	4
0	28 28	36	32 32	19 19	18 18	18	18	64	127	128	60	3
)	28	36	34	19	17	18 17	18	74	153	134	- 58	ä
1	28	36	34	19	18	17	18	68	157	126	49	a
2	29	35	34	19	16	17	18	76	135	118	66	3
3	30	35	34	18	16	17	18	76	109	124	75	4
	30 31	36 36	34 33	19 19	18 18	17 17	18 20	79 96	99 85	118 115	68 66	4
t											63	4
}	31 32	35 35	32 32	18 19	18 18	18 18	21 21	102 114	75 72	110 96	62	1
	32	34	32	18	18	18	21 21	104	72	90	57	,
	33	34	32	19	18	18	22	94	69	85	56	3
	33	34	31	18	18	18	22	94	72	82	58	8
	35	34	31	18	18	18	22	73	72	88	46	8
	34	34	31	19	18	18	22	73	67	94	44	1
	34	34	31	19	18	18	22	91	69	92	42	2
	34 34	33 33	31 31	19 18	18 18	18 18	21 22	120 118	79 <b>92</b>	90   84	41 43	2 2
	34	33	31	18	18	18	21	100	99	85	42	2
	34	33	31	17	18	18	20	94	103	88	41	3
	34	33	32	17	18	18	19	91	127	85	40	2
	34	33	32	18		18	20	88	134	84	40	2
	34	32	32	18		18	20	81	150	85	41	2
	34		32	18		18		67		100	40	
1923-24		90	,,				15		00	90	18	]
	28 28	23 23	19 20	17 17	16 16	14 14	15 15	44	36 38	22 22	18	j
	28 28	23	20	18	16	15	15	50 51	42	22	18	ĺ
	27	23	20	17	16	15	14	54	44	22 23	18	j
	26	23	20	17	16	15	14	43	48	22	18	1
	26	23	20	17	16	14	14	44	44	23	17	1
	26	22	19	17	15	14	14	57	40	23	17	1
	26	22	18	17	15	15	14	67	38	22	17	]
	26 26	23 22	16 17	16 16	16 16	14 14	· 15	73 67	36 33	22 22	17 16	]
			1			1			_			
	26	22	18	16	16	14	18	65	31	22	16 17	1
	26 26	22 22	19 19	16 16	16 16	15 14	18 20	.40	29 27	21 21	18	
	26	22	18	16	15	14	23	42	26	20	17	1
	26	22	18	16	15	14	20	52	26	20	16	i
	26	22	18	16	15	15	20	62	25	20	16	1
	26	20	18	17	15	15	19	69	25	22 29	16	
	25	21	18	17	15	16	19	65	24		16	
	24 24	21 21	18 18	17 17	15 15	16 15	19 22	64 64	23 22	28 26	16 16	
į				ì			. 24				16	
	24 24	21 21	18 16	17 17	15 15	15 15		62 52	22	24 22	16	
	24 24	21	17	17	15	16	29 31	42	22 22	20	15	
	24	20	18	16	15	16	26	39	22	20	15	]
	24	20	18	16	15	16	21	43	22	20	14	1
	24 24	20 20	18 18	16 16	15 15	17 16	21 19	45 40	22 21	19 20	14 14	]
	24	20	18 18	16	15	17	19	38	21	20	14	
	24	20	18	16	15	16	21	38	21	19	14	i
								00				
	24 23	20	17	16 16		16 15	28	36 36	21	19 19	14 14	1

## OWENS LAKE BASIN

Daily discharge, in second-feet, of Pine Creek at division box near Bishop, Calif., for the years ending September 30, 1922-1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	, June	July	Aug.	Sept.
1924-25 1	13 13 13 13 14	15 16 16 16 16	16 16 16 16 16	14 14 14 14 14	14 14 14 14 14	15 15 15 15 15	15 16 15 15 15	29 37 53 69 79	74 67 56 46 40	132 1 <b>36</b> 127 120 114	51 51 51 52 52	28 28 27 27 27
6	14 14 14 14 14	16 16 16 18 17	16 16 16 16 16	14 14 14 14 14	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	83 80 73 65 57	38 36 46 62 72	114 109 105 103 100	50 48 47 48 54	26 25 24 24 24 24
11 12 13 14 15	14 14 14 14 14	16 16 16 16 16	16 16 16 16 16	14 14 14 14 14	15 15 15 15 16	15 15 15 14 14	17 18 18 20 21	49 43 39 34 37	84 108 128 128 107	102 92 89 90 100	52 52 50 46 43	23 23 22 22 22 22
16	14 14 14 14 14	16 16 16 16	15 15 14 13 13	14 14 14 14 14	16 15 15 14 15	·14 14 14 14 14	24 23 22 21 20	45 50 57 57 50	101 108 110 119 130	106 102 111 134 109	42 39 39 36 35	22 21 21 20 21
21	14 14 14 14 14	16 15 15 15 15	14 15 16 16 14	14 14 14 14 14	15 15 15 15 15	14 14 15 15 15	20 20 19 19 19	45 59 67 79 100	128 121 130 133 136	96 84 77 71 66	33 30 38 44 42	21 20 20 20 19
26	16 17 18 18 18 18	15 15 15 15 16	14 15 15 15 16 16	14 14 14 14 14 14	15 15 15	15 15 15 16 15 16	20 22 25 25 25 25	115 112 126 126 103 80	135 142 136 128 136	62 62 57 55 55 55	38 34 33 30 28 28	19 19 19 19 19
1925-26 1	19 19 19 19	17 17 16 17 17	16 16 16 16 16	15 14 15 14 14	14 14 14 14 14	16 16 16 16 16	16 16 16 16 17	68 62 82 97 90	150 146 122 127 133	54 49 48 46 47	26 26 26 26 27	31 26 22 20 19
6	20 20 20 20 19	16 16 16 16 16	16 16 16 16 16	14 15 14 14 14	14 14 14 14 14	16 15 15 15 15	16 17 17 17 14	62 52 44 46 43	127 112 138 122 125	50 50 47 46 53	31 44 41 38 36	18 18 18 18 18
11	20 19 20 20 20	16 16 16 16 16	16 15 15 14 15	15 15 15 15 15	14 14 14 14 14	15 15 15 15 15	15 16 18 22 30	44 53 66 81 100	102 97 93 87 79	51 51 46 43 40	32 28 26 24 24	18 18 18 17 17
16	20 18 18 18 17	16 16 16 16 16	15 15 16 15 15	14 15 15 14 14	14 14 14 15 15	15 16 16 16 15	43 56 49 42 37	124 132 140 149 154	73 72 71 70 68	38 38 37 34 32	22 22 22 22 22 22	17 18 18 18 18
21	17 17 17 17 17	16 16 16 16 16	15 15 16 16 16	14 14 14 14 14	15 15 16 16 16	15 15 15 15 15	43 49 57 77 90	153 146 123 97 72	69 71 72 70 69	34 33 32 29 28	22 22 22 21 21	18 18 18 18 18
26	17 18 18 17 17 17	16 16 16 16 16	16 15 15 15 14 14	13 13 14 15 14 14	16 16 16	15 15 15 15 15 16	82 92 80 84 77	58 61 73 88 118 137	66 66 65 62 58	28 28 27 26 26 26	20 20 20 20 20 24 32	18 18 18 18 17

Monthly discharge of Pine Creek at division box near Bishop, Calif., for the years ending September 30, 1922-1926

	Discha	rge in second	l-feet	D # :-	
Month	Maximum	Minimum	Mean	Run-off in acre-feet	
1921-22 October 21-31	17 18 18 18 19 20 29 169 286 253 118	17 17 16 14 15 17 18 30 173 110 48 32	17. 0 17. 1 17. 2 16. 8 17. 1 17. 8 20. 7 69. 9 225 182 39. 2	371 1,020 1,060 1,030 950 1,230 4,300 13,400 11,200 4,320 2,330	
The period				42, 300	
1922–23  October	35 36 34 20 18 18 22 120 157 181 83 58	28 32 31 17 16 17 18 21 54 82 40 28	31. 9 34. 3 32. 1 18. 7 17. 8 17. 8 19. 6 73. 9 92. 0 115 56. 9 36. 7	1, 960 2, 040 1, 970 1, 150 989 1, 090 1, 170 4, 540 5, 470 7, 070 3, 500 2, 180	
The year	181	16	45. 8	33, 100	
1923–24 October	28 23 20 18 16 17 31 73 48 29 18 15	23 20 16 16 15 14 14 36 21 19 14 13	25. 3 21. 5 18. 2 16. 5 15. 4 15. 1 19. 4 51. 6 29. 1 21. 7 16. 1 13. 9	1, 560 1, 280 1, 120 1, 010 886 928 1, 150 3, 170 1, 730 990 827	
1924-25	18 18 16 14 16 16 25 126 142 136 54 28	13 15 13 14 14 14 15 29 36 52 28 19	14. 5 15. 8 15. 3 14. 0 14. 9 14. 9 19. 0 67. 7 99. 5 94. 6 42. 5 22. 4	892 940 941 861 1, 130 4, 160 5, 920 5, 820 2, 610 1, 330	
October	16 16 92	17 16 14 13 14 15 14 43 58 26 20 17	18. 5 16. 1 15. 4 14. 3 14. 6 15. 3 40. 7 90. 8 92. 7 39. 3 26. 1 18. 8	1, 140 958 947 879 811 941 2, 420 5, 580 5, 520 1, 600 1, 120	

### ANTELOPE VALLEY BASIN

## ROCK CREEK NEAR VALYERMO, CALIF.

Location.—In NE. ¼ sec. 20, T. 4 N., R. 9 W., 1¾ miles southeast of Valyermo, Los Angeles County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—January 17, 1923, to September 30, 1926.

Gage.—Water-stage recorder in wooden well and shelter on right bank a quarter of a mile south of boundary line of Angeles National Forest.

DISCHARGE MEASUREMENTS.—Made from footbridge 20 feet below the gage or by wading.

CHANNEL AND CONTROL.—Boulders and gravel, which may shift at high stages; fairly permanent at low and medium stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 3.38 feet at 5.30 p.m. April 7 (discharge, 416 second-feet); minimum, 0.84 foot at 5 p.m. October 1 (discharge, 1.4 second-feet).

1923-1926: Maximum stage recorded, that of April 7, 1926; minimum discharge, 1.2 second-feet at 6 p. m. August 22, 1925.

Diversions.—None.

REGULATION.—None.

Accuracy.—Stage-discharge relation not permanent. Standard rating curve fairly well defined. Water-stage recorder record excellent, except from November 26 to December 2, when paper supply was exhausted, and March 11-22, when clock was stopped. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method. Discharge interpolated on days of no gage-height record. Records good.

Discharge measurements of Rock Creek near Valyermo, Calif., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 7 Oct. 28 Dec. 3 Jan. 9 Feb. 21 Mar. 23 Mar. 31	Feet 0. 87 . 88 . 94 1. 02 1. 03 1. 14 1. 14	Secft. 1.9 1.8 2.2 2.7 4.2 6.5 6.6	Apr. 16	Feet 1. 80 1. 72 1. 73 1. 92 1. 85 1. 66 1. 57	Secft. 60 52 49 89 65 44 34	July 3	Feet 1. 34 1. 32 1. 26 1. 10 1. 08	Secft.  15 15 15 12 5.8 5.6

Daily discharge, in second-feet, of Rock Creek near Valyermo, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 2 3 4 5	1. 6 1. 6 1. 6 1. 6 2. 2	2. 4 2. 4 2. 6 2. 6 2. 6	2. 2 2. 2 2. 2 2. 4 2. 8	3. 2 3. 2 3. 2 2. 8 2. 8	2.8 2.6 3.6 3.0 3.0	6 6 6 6. 5 7	6 6 6 6. 5 251	58 66 66 63 61	32 31 30 30 30	18 18 17 17 17	12 12 12 12 12 11	6. 5 6. 5 6 6 6. 5
6 7 8 9 10	2.0 1.8 1.8 2.0 2.2	2.8 2.8 2.8 2.8 3.0	3. 2 3. 2 3. 0 3. 0 3. 0	2.8 2.6 2.6 2.6 2.6 2.6	3. 0 2. 8 3. 0 3. 0 3. 0	7 7.5 7 7	224 206 236 130 92	59 56 53 52 49	30 29 29 28 28 28	17 17 17 17 16	11 11 11 9. 5	6. 5 6. 5 6. 5 6. 5 6. 5
11	2. 4 3. 0 3. 2 3. 2 3. 2	2.8 2.8 2.8 3.0 3.0	3.0 3.0 2.8 2.8 2.8	2.8 2.8 2.6 2.6 2.8	3.0 6.5 9 7 6	7 7 7 7	80 82 80 79 79	48 47 46 45 44	27 27 26 26 26 25	16 16 16 15 15	9 9. 5 9. 5 9. 5 8. 5	6. 5 6. 5 6 6

Daily discharge,	in	second-feet, o	f.	Rock	Creek	near	Valyermo,	Calif.,	for	the	year
• • • •		ending Sept	em	ıber 3	0, 192	6—C	ontinued	•	•		-

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	3. 2 3. 2 2. 8 2. 8 2. 6	3. 2 3. 0 2. 8 2. 8 2. 6	2.8 2.8 3.4 3.4 3.4	2. 8 2. 8 3. 0 3. 0 3. 0	5 4.7 4.4 4.4	7 6. 5 6. 5 6. 5	59 55 60 56 54	44 42 41 40	25 25 25 25 25 24	15 15 14 14 14	8 7.5 7.5 7.5 7.5	6. 5 6. 5 6. 5 6
21	2. 6 2. 4 2. 4 2. 2 2. 2	2.6 2.4 2.8 3.0 2.4	3. 4 3. 4 3. 4 3. 2 3. 2	3. 2 3. 2 3. 2 3. 2 3. 2 3. 2	4. 1 4. 4 4. 7 4. 4 4. 7	6. 5 6. 5 6. 5 6. 5	52 49 48 48 48	39 38 38 38 37	24 23 23 22 21	14 14 14 14 14 14	7.5 7.7 7 7	6, 5 6, 5 6 6
26	1.8 1.8 1.8 2.2 2.4 2.4	2.4 2.4 2.3 2.3 2.3	3. 2 3. 4 3. 4 3. 2 3. 2	3. 2 3. 4 3. 4 3. 4 5. 5	5 5. 5 6	7 7 7 6. 5 6. 5 6. 5	48 53 56 56 56 55	36 36 35 34 33	21 21 20 20 19	13 12 12 12 12 12 12	7 6. 5 6. 5 6. 5 6. 5 6. 5	6 6 6.5 6.5 7

## Monthly discharge of Rock Creek near Valyermo, Calif., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	3. 4 5. 5 9 7. 5 251 66 32 18	1. 6 2. 3 2. 2 2. 6 6 6 6 33 19 12 6. 5	2. 33 2. 68 3. 02 3. 06 4. 41 6. 73 78. 7 45. 7 25. 5 15. 0 8. 69 6. 32	143 159 186 188 245 414 4,680 2,810 1,520 922 534
The year	251	1.6	16. 8	12, 200

## MONO LAKE BASIN

## MONO LAKE NEAR MONO LAKE, CALIF.

LOCATION.—In lot 6, SE. ¼ NE. ¼ sec. 31, T. 2 N., R. 26 E., 2 miles south of Mono Lake post office, Mono County.

RECORDS AVAILABLE.—June 15, 1912, to September 30, 1926 (fragmentary). Gage.—Vertical staff on support of boathouse, installed September, 1912; read once a month by W. E. Green. Original gage was vertical staff fastened to willow tree 400 feet from Hammon's store.

EXTREMES OF STAGE.—1912-1926: Maximum stage recorded, 13.55 feet July 18, 1919; minimum, 7.93 feet December 11, 1913.

COOPERATION.—Gage-height record furnished by United States Forest Service.

Gage height, in feet, of Mono Lake near Mono Lake, Calif., during the year ending September 30, 1926

Oct. 17	9. 54	Apr. 27	10.04	Aug. 19	9. 51
Nov. 17	9. 46	May 10	10.05	Sept. 18	9.08
Dec. 15					
Mar 18	9 97	July 24	9. 70		

## WALKER LAKE BASIN

## EAST WALKER RIVER NEAR BRIDGEPORT, CALIF.

LOCATION.—In SW. ¼ NE. ¼ sec. 34, T. 6 N., R. 25 E., 1,500 feet downstream from Bridgeport Reservoir of Walker River Irrigation District and 4¾ miles north of Bridgeport, Mono County. Sweetwater Creek enters from left 10 miles downstream.

Drainage area.—362 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 1, 1921, to September 30, 1926 (fragmentary), and miscellaneous measurements in 1920 and 1921. 1911-1914 at a site 1½ miles upstream.

Gage.—Stevens continuous water-stage recorder on right bank; inspected by watchman at dam.

DISCHARGE MEASUREMENTS.—Made by wading or from highway bridge 1½ miles downstream.

CHANNEL AND CONTROL.—Channel straight above gage; bends to right below.

Bed of boulders and sand. Control of boulders; fairly permanent.

Ice.—Stage-discharge relation probably seldom affected by ice.

DIVERSIONS.—Considerable areas of meadow and pasture irrigated in Bridgeport Valley above reservoir.

REGULATION.—Flow regulated at Bridgeport Reservoir, capacity 42,000 acre-feet, finished in November, 1924.

Accuracy.—Stage-discharge relation permanent during year. Rating curve fairly well defined. Daily gage readings obtained when water-stage recorder was not operating except October 4-20. Daily discharge ascertained by applying mean daily gage height or daily gage reading to rating table. Discharge estimated for period of missing gage heights. Records good.

Cooperation.—Gage-height record furnished by Walker River Irrigation District.

The following discharge measurements were made:

October 21, 1925: Gage height, 2.56 feet; discharge, 32.0 second-feet.

March 24, 1926: Gage height, 2.58 feet; discharge, 31.6 second-feet.

June 2, 1926: Gage height, 3.89 feet; discharge, 252 second-feet.

Daily discharge, in second-feet, of East Walker River near Bridgeport, Calif., for the year ending September 30, 1926

Day	· Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55 53 31	27 27 27 27 27 27	21 21 21 21 21 21	2 5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	63 85 97 95 80	200 210 208 208 213	249 249 251 251 251	326 323 321 321 321 321	137 137 137 137 137 135	108 108 108 108 108
6		27 27 27 26 25	21 21 21 21 21 21	55555	5 5 5 5 5	5 5 5 5 5	63 63 64 64 64	215 215 215 215 215 215	251 253 265 270 270	313 300 300 295 295	137 135 133 144 165	116 117 116 114 112
11 12 13 14 15	30	24 24 24 24 24 24	21 21 21 21 21 21	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	64 64 79 104 104	215 215 221 230 230	265 249 244 244 268	292 295 292 290 288	165 165 165 165 130	111 109 109 66 66
16 17 18 19 20		24 24 24 24 24 24	21 21 21 21 21 21 21	5 5 5 5 5	5 5 5 5 5	5 5 14 14 14	108 140 151 152 152	230 233 228 217 219	280 285 305 326 329	282 246 242 242 242 242	101 112 127 144 145	66 66 65 65 63

Daily discharge, in second-feet, of East Walker River near Bridgeport, Calif., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	30 26 26 26 26 26	24 24 22 21 21	21 21 21 21 21	5 5 5 5 5	5 5 5 5 5	14 14 14 36 66	163 175 173 175 175	224 237 235 242 253	323 308 308 305 305	244 244 244 196 185	145 128 111 106 104	63 63 63 60 60
26	26 26 27 27 27 27	21 21 21 21 21- 21	21 21 21 2 2 2 2	5 5 5 5 5 5 5	5 5 5	65 65 64 64 64 64	177 179 181 183 189	251 251 251 249 249 249	316 334 334 331 329	163 163 161 160 160 147	104 106 104 104 104 108	56 53 53 52 40

## Monthly discharge of East Walker River near Bridgeport, Calif., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November December January February March April May June July August September	21 5 5 66 189 253 334	26 21 2 2 5 5 63 200 244 147 101	30. 4 24. 1 1. 2 4. 9 5. 0 21. 2 121 227 285 255 130 82. 0	1, 870 1, 430 1, 180 301 278 1, 300 7, 200 14, 000 17, 000 7, 990 4, 880	
The year	334	2	101	73, 100	

## WALKER RIVER NEAR WABUSKA, NEV.

LOCATION.—In NE. ¼ sec. 20, T. 15 N., R. 26 E., half a mile above boundary line of Walker River Indian Reservation and 5 miles east of Wabuska, Lyon County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—January 15, 1920, to September 30, 1926. Comparable records were obtained July 22, 1902, to July 31, 1908, at railroad bridge 3 miles upstream.

Gage.—Low-water staff gage on bridge pier formerly used as auxiliary gage to water-stage recorder; read by Mrs. A. E. Parker.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Banks fairly high and clean. Bed composed of sand. At very high stages abandoned channel on right may carry small quantity of water around gage. At stages below about 20 second-feet stream meanders through sandy bed in two or more channels at gage.

EXTREMES OF DISCHARGE.—1920–1926: Maximum stage recorded, 7.08 feet at 10 a.m. June 8, 1922 (discharge, 2,220 second-feet); no flow in August and September, 1924, and numerous periods from March to September, 1925.

DIVERSIONS.—Below all diversions, except for Walker River Indian Reservation. REGULATION.—Flow regulated by Bridgeport, Poor Lake, and Topaz Lake Reservoirs; also by diversions.

Accuracy.—Stage-discharge relation changed slightly July 1; affected by ice December 15 to January 20. Rating curves well defined below 80 second-feet. Staff gage read once daily throughout year. Daily discharge ascertained by applying daily gage height to rating table; discharge estimated December 15 to January 20. Records fair.

# Discharge measurements of Walker River near Wabuska, Nev., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	D is- charge	Date	Gage height	Dis- charge
Oct. 20 Mar. 23	Feet 3. 40 3. 00	Secft. 65. 0 16. 5	May 31 July 16	Feet 3. 30 3. 10	Secft. 44. 6 26. 5	July 21	Feet 3. 20	Secft. 31.8

# Daily discharge, in second-feet, of Walker River near Wabuska, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1, 2 3 4	34 40 47 47 47	40 40 47 47 47	37 40 40 34 34		70 47 47 47 47	40 40 40 34 34	24 40 47 54 62	40 47 47 70 70	47 54 62 54 47	62 62 62 62 62 35	11 11 11 11 11	7 7 11 17 17
6	54 47 47 54 54	47 • 47 47 54 54	34 34 34 34 34	30	47 47 47 47 62	34 34 34 29	70 70 62 62 62 62	62 54 54 54 54	47 47 47 54 62	47 62 54 54 47	17 21 21 17 17	17 17 17 11 11
11	62 54 47 47 62	54 54 47 47 54	34 34 34 34 34	80	70 79 79 79 79	29 29 29 24 24	62 62 62 24 24	47 47 47 47 62	98 119 108 98 98	47 41 41 47 35	11 11 17 25 25	11 11 11 11 9
16	70 70 70 62 62	54 54 47 47 47			88 79 79 79 79	24 24 24 16 16	29 34 34 47 47	62 70 119 119 119	88 47 37 34 24	25 21 21 21 21 25	25 35 35 30 17	7 7 7 7
21 22 23 24 25	62 58 58 54 47	47 40 40 34 34	30	34 34 34 34 34	47 47 47 47 47	16 16 16 16 16	54 54 47 70 62	119 119 108 108 79	16 20 29 47 34	35 25 30 47 35	17 11 11 7 7	7 7 7 7 7
26. 27. 28. 29. 30.	47 47 47 47 40 40	34 34 34 34 34		34 34 34 62 79 98	47 44 40	16 16 16 16 16 16	62 79 40 40 40	65 62 62 54 54 47	24 24 34 47 62	25 17 11 11 11 11	7 6 7 7 17 11	7 7 7 7 11

Note.—Braced figures show estimated mean discharge for periods indicated.

## Monthly discharge of Walker River near Wabuska, Nev., for the year ending September 30, 1926

	Discha	arge in second	l-feet	Run-off in acre-feet	
Month	Maximum	Minimum	Mean		
October November December January February March April May June July August September	40 98 88 40 79 119 119 62 35	34 34 34 40 16 24 40 16 11 6	52. 4 44. 7 32. 3 35. 8 59. 4 24. 8 50. 9 69. 9 53. 6 36. 4 15. 8 9. 8	3, 220 2, 660 1, 990 2, 200 3, 300 1, 520 3, 030 4, 300 2, 240 972 583	
The year	119	6	40. 3	29, 200	

#### WALKER RIVER AT SCHURZ, NEV.

LOCATION.—In sec. 36, T. 13 N., R. 28 E., 50 feet below Southern Pacific Railroad bridge at Schurz, Mineral County, 3 miles above Walker Lake, and 6 miles below diversion dam of Walker River Indian Reservation.

DRAINAGE AREA.—2,850 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 2, 1913, to September 30, 1926.

GAGE.—Inclined staff gage on right bank 50 feet below Southern Pacific Railroad bridge; read by Irving Clark.

DISCHARGE MEASUREMENTS.—Made by wading or from flume half a mile below gage.

CHANNEL AND CONTROL.—Bed composed of loose sand; shifts occasionally.

One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 1.98 feet at 7 a. m. February 5 and 7 p. m. February 17 (discharge, 125 second-feet); river dry during part of October, March, April, May, June, July, and August.

1913–1926: Maximum stage recorded, 11.0 feet June 8 and 9, 1914 (discharge, 2,530 second-feet); no flow during periods in 1913, 1920, 1921, 1922, 1924, 1925, and 1926.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Below all diversions.

REGULATION.—Flow regulated by Bridgeport, Poor Lake, and Topaz Lake Reservoirs; also by irrigation diversion.

Accuracy.—Stage-discharge relation changed slightly during February. Rating curves fairly well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records fair.

The following discharge measurements were made:

October 22, 1925: Gage height, 1.50 feet; discharge, 45.2 second-feet.

March 23, 1926: Discharge (estimated), 1.5 second-feet.

May 31, 1926: Gage height, 0.74 foot; discharge, 2.3 second-feet.

Daily discharge, in second-feet, of Walker River at Schurz, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	11	43	23	102	105	0	0	2	0	0	1
2	Ō	10	45	23	109	91	Ŏ	Ō	2	Ō	Ιŏ	l ī
3	Ŏ	8	41	19	117	81	Ō	Õ	4	Ò	Ιŏ	ī
4	ŏ	6	43	16	121	68	ŏ	ŏ	6	ŏ	ľŏ	î
5	4	4	-36	18	117	51	ĭ	ŏ	8	ŏ	ŏ	î
6	5	4	38	24	109	29	1	10	7	0	0	1
	, ,		41		109	20	i	ŏ		ŏ	ŏ	1 :
7	5 5	4		25					8 8 7			1
8	5	4	36	28	95	18	] 1	0	8	0	0	Ī
9j	8	3	33	29	107	17	1	0		0	0	1
10	8	4	30	31	109	14	0	0	7	0	1	1
11	12	4	32	32	109	13	0	0	7	0	1	1
12	27	4	34	32	105	12	ŏ	ŏ	. 8	ŏ	l î	Ī
13	27	4	34	34	117	îĩ	ŏ	ŏ	` 8	ŏ	Ιī	Î
14	34	5	30	35	113	9	ŏ	ŏ	60	ŏ	1 7	1 1
15	45	5	27	34	115	8	0	ŏ	54	ŏ	1	1 :
	40	9	21	34	119	_	U	U		U	1	1 1
16	48	5	25	34	117	7	0	0	39	0	1	1
17	48	4	27	35	121	4	0	Ō	17	0	ī	1
18	53	1 4	30	36	109	$\tilde{2}$	ĭ	ŏ	2	Ŏ	Ī	l ī
19	52	4	27	38	102	2	Ô	ŏ	Õ	ŏ	î	ī
20	50	3	27	36	105	ī	ŏ	25	ŏ	1	1	l î
						1	1					
21	57	3	29	34	109	1	0	36	0	1	1	1
22	45	2	29	32	105	1	.0	39	0	1	1	1
23	38	4	30	31	105	1	Ŏ	33	0	Ö	1	' 1
24	38	2	30	30	102	ī	ŏ	37	Ŏ	Ŏ	1	Ī
25	43	3	30	30	105	ō	ŏ	27	ŏ	Ō	î	l ī
26	23	3	30	31	105	0	1	19	0	1	1	1 1
27	19	3	33	32	102	ŏ	1 7	8	ŏ	î	í	i i
							;		ŏ	ō	i	‡
	15	4	29	41	104	0	1 1	0				
29	15	16	27	117		0	2	0	0	1	1	۱, i
30	15	32	25	88		0	1	0	0	0	1	1
31	13		24	102		0		2		0	1.	

Monthly discharge of Walker River at Schurz, Nev., for the year ending September 30, 1926

	Discha	arge in second	1-feet	Run-off in
$oldsymbol{ ext{Month}}$	Maximum	Minimum	Mean	acre-feet
October November December Jamenry February March April May June July August September	45 117 121 105 1 39 60	0 2 24 16 95 0 0 0 0 0	24. 3 5. 7 32. 1 37. 1 109 18. 3 . 4 7. 3 8. 5 . 2 . 1. 0	1, 490 339 1, 970 2, 280 6, 050 1, 130 24 449 506 12 43
The year	121	0	• 19.8	14, 400

#### WEST WALKER RIVER NEAR COLEVILLE, CALIF.

LOCATION.—In NE. ¼ NW. ¼ sec. 28, T. 8 N., R. 23 E., at mouth of Ross Canyon at head of Antelope Valley, 400 feet east of State highway, 1,100 feet above Terry Canal heading, 1.4 miles above Terry ranch house, 6 miles above Coleville, Mono County, and 40 miles southeast of Gardnerville, Nev.

Drainage area.—245 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 18, 1915, to September 30, 1926. October 5, 1902, to July 31, 1908, at a site half a mile upstream.

Gage.—Stevens continuous water-stage recorder on left bank; inspected by T. F. Hardy.

DISCHARGE MEASUREMENTS.—Made from cable 1,000 feet downstream or by wading.

Channel and control.—Bed composed of large boulders, sand, and gravel; fairly permanent. One channel at all stages. Control composed of large boulders and some loose gravel; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.67 feet at 1 a. m. May 20 (discharge, 1,430 second-feet); minimum, 1.43 feet at 4 p. m. February 21 (discharge, 19 second-feet).

1915-1926: Maximum stage recorded, 5.74 feet at 3 a. m. June 12, 1921 (discharge, 2,710 second-feet); minimum, 1.21 feet at 5 p. m. December 3, 1924 (discharge, 5 second-feet).

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—Station is above all diversions except one small canal 1½ miles upstream, which diverts a maximum of 3 second-feet.

REGULATION.—A small reservoir at Poor Lake, 17 miles upstream, capacity unknown, stores water from spring floods and releases it in summer. Regulation is very slight.

Accuracy.—Stage-discharge relation remained permanent. Rating curve well defined. Water-stage recorder operated satisfactorily except August 28-30. Daily discharge ascertained by applying mean daily gage height to rating table; estimated August 28-30. Records good.

Discharge measurements of West Walker River near Coleville, Calif., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 21 Mar. 24	Feet 1, 83 2, 18	Secft. 62. 6 128	June 1	Feet 3. 74 1. 74	Secft. 756 52. 0

Daily discharge, in second-feet, of West Walker River near Coleville, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	59	65	45	43	51	166	737	773	166	39	47
2	46	56	70	52	43	54	162	837	725	155	40	44
3	46	50	54	51	39	54	162	994	689	146	39	43
4	46											40
5		51	50	43	45	56	171	1,050	588	137	38	37 32
0	<b>4</b> 9	51	59	45	43	59	206	928	629	135	40	32
6	54	55	60	46	50	64	196	617	599	142	45	30
7	55	56	54	43	45	66	190	461	571	121	42	29
8	55	65	50	43	46	71	176	382	915	115	40	28
9	58	59	47	45	49	70	157	351	882	119	37	28
10	59	59	45	44	50	65	168	332	582	115	36	29 28 28 27
11	58	62	45	42	44	62	201	354	476	115	35	26
2	58	56	51	40	42	68	186	412	403	232	33	26 27
3	70	55	35	40	47	70	218	537	378	159	33	97
4	71	47	33	37	49	81	320		339	131	32	27 26 27
5	62	58	40		49			653				20
.0	. 02	- 28	40	40	47	93	481	779	296	111	31	21
6	64	58	44	35	44	111	641	863	276	98	30	27
7	64	52	51	40	45	123	665	954	276	96	29	28
8	65	52	45	33	52	107	447	974	263	93	28	28 28 28 28
9	65	50	43	39	51	104	416	1, 140	253	86	26	28
20	64	51	42	40	50	100	481	1, 160	241	81	25	28
21	65	50	55	39	40	100	617	1, 040	232	71	35	29
22	70	52	50	39	51	100	701	928	232	65	50	29
3	68	55	47	37	45	113	719	856	229	59	52	20
4	66	54	42	34	51	133	850	594	223	56	52	29 29 28
5	65	52	45	36	50	133	967	447	223	54	51	20
·0	00	1 02	40	30	30	199	901	347	220	94	31	20
26	64	52	45	39	50	135	980	421	215	51	51	28 28 28 26 27
7	62	54	45	40	50	135	960	511	212	49	50	28
8	62	50	43	44	52	140	987	659	204	49	50	28
9	60	52	43	72		144	915	737	201	46	50	26
0	59	55	43	55		142	811	749	180	44	51	27
1	59	1 1	43	47	ı <b>J</b>	162		755		40	51	j

Monthly discharge of West Walker River near Coleville, Calif., for the year ending September 30, 1926

	Discha	<b>rge in</b> second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April June June July August. September	65 70 72 52 162 987 1,160 915 232 52	46 47 33 33 39 51 157 332 180 40 25 26	59. 9 54. 3 47. 9 42. 7 46. 9 95. 7 477 717 410 101 40. 0 29. 9	3, 680 3, 230 2, 950 2, 630 5, 880 28, 400 44, 100 24, 400 6, 210 2, 460 1, 780
The year.	1, 160	25	177	128, 000

#### WEST WALKER RIVER AT HOYE BRIDGE, NEAR WELLINGTON, NEV.

LOCATION.—In SE. ¼ sec. 17, T. 10 N., R. 23 E., at Hoye Bridge, in Douglas County, 2 miles above head of Saroni Canal and 4 miles southwest of Wellington, Lyon County.

Drainage area.—504 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 26 to August 31, 1910; March 9, 1924, to September 30, 1926 (fragmentary). Record obtained 3½ miles downstream in sec. 10, T. 10 N., R. 23 E., December 20, 1917, to May 11, 1924.

GAGE.—Stevens continuous water-stage recorder on left bank at upstream side of bridge; inspected by employees of Walker River Irrigation District. Datum changed September 4, 1925.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

Channel and control.—One channel at all stages. Banks not subject to overflow. Riffle at bridge fairly permanent.

Extremes of discharge.—1924—1926: Maximum stage, 7.58 feet at 2.30 p. m. September 4, 1925 (discharge, 1,190 second-feet); minimum, 2.49 feet from 7 to 9 a. m. December 19, 1925 (discharge, 6 second-feet).

Ice.—Stage-discharge relation affected by ice.

Diversions.—Station is below all diversions and return water in Antelope Valley and above all diversions in Smith Valley.

REGULATION.—Flow partly regulated by Poor Lake and Topaz Lake Reservoirs; also by diversions in Antelope Valley.

Accuracy.—Stage-discharge relation shifted slightly for low stages; affected by ice December and January. Rating curve fairly well defined. Operation of water-stage recorder satisfactory except as stated in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated or interpolated for periods of missing gage heights. Records of daily discharge good; estimates fair.

Cooperation.—Gage-height record and four discharge measurements furnished by Walker River Irrigation District.

Discharge measurements of West Walker River at Hoye Bridge, near Wellington, Nev., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 21 Mar. 24 Apr. 11	Feet 3, 25 3, 43 4, 12	Secft. 29. 4 50. 8 140		Feet 7. 12 6. 87 3. 91	Secft. 770 719 101	Sept. 10	Feet 3. 65	Secft. 70. 2

Daily discharge, in second-feet, of West Walker River at Hoye Bridge, near Wellington, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 2		25 25 25 26 26 26	28 28 28		33 32 33 52 43	29 27 25 24 22	97 110 114 114 116	592 653 733 762 772	675 634 601 587 585	353 351	275 269 263 258 254	104 100 96 93 90
6	30	26 29 28 28 27			34 32 29 28 28	22 20 20 19 19	115 108 106 108 130	687 630 576	583 564 564 682 514	325	250 245 238 232 225	85 79 76 75 72
11	30	27 27 26 25 25			26 25 25 25 27	18 18 17 17 17	147 185 190 209 254	574 608 665	416 372 360 343 331		220 213 208 197 175	70 69 68 65 64
16		25 26 26 28 28	28	30	29 32 33 25 31	17 17 19 20 20	313 452 445 404 414	723 699 675 687 687	335 353 389 383 374	300 323 337 333	172 184 177 168 168	62 60 60 58 57
21	30 × 28	33 38 26 26 28			38 38 38 39 43	20 21 53 51 52	456 500 539 571 580	632 569 546 551 539	368 366 349 346 344	331 305 279 271 267	168 160 152 146 144	56 55 55 56 57
26	, 25 26 25 25 25	28 28 27 26 27			53 45 35	56 66 89 90 90	651 663 687 675 615	583 646 680 704 697 687	341 376 393 374 362	262 260 256 250 247 247	136 130 126 121 114 109	56 53 52 51 52

Note.—No gage-height record Oct. 1-20, 22-27, Nov. 11-15, Dec. 4 to Jan. 31, May 7-9, 13-15, June 24, 25, and July 3-16; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of West Walker River at Hoye Bridge, near Wellington, Nev., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November		25 25	29. 0 27. 2	1, 780 1, 620
December			a 28 a 30	1, 720 1, 840
February March April	93 687	25 17 97	34. 0 35. 1 336	1, 89 2, 16 20, 00
vayuneulyulyuly	682	539 331 247	650 442 307	40, 00 26, 30 18, 90
ugust eptember	275 104	109 51	190 68. 2	11, 70 4, 06
The year	772	17	182	132, 00

a Estimated.

#### HUMBOLDT-CARSON SINK BASIN

#### CARSON RIVER BASIN

#### EAST FORK OF CARSON RIVER NEAR MARKLEEVILLE, CALIF.

LOCATION.—In NE. ¼ sec. 27, T. 10 N., R. 20 E., at Hangmans Bridge, 2 miles east of Markleeville, Alpine County. Indian Creek enters 100 feet above gage and Markleeville Creek 1¼ miles below.

Drainage area.—Not measured.

RECORDS AVAILABLE.—November 13, 1910, to September 30, 1926 (fragmentary). Gage.—Vertical staff 75 feet below bridge, bolted to rock ledge on right bank; read by W. J. Clark.

DISCHARGE MEASUREMENTS.—Made from cable 400 feet below gage or by wading.

CHANNEL AND CONTROL.—Gravel and small boulders; appear permanent.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 705 second-feet on May 20; minimum, 2.30 feet September 3 (discharge, 15 second-feet).

1910-1926: Maximum stage recorded, 7.7 feet June 7, 1911 (discharge not determined); minimum, 1.45 feet September 20, 1913 (discharge, 6 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—No information.

REGULATION.—Low-water flow augmented by storage on Silver Creek above station.

Accuracy.—Stage-discharge relation changed May 5. Rating curves fairly well defined. Staff gage read to quarter-tenths occasionally when forest ranger passes gage; no ranger at station except during summer. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

Cooperation.—Gage-height record furnished by United States Forest Service.

The following discharge measurement was made:

May 14, 1926: Gage height, 4.28 feet; discharge, 380 second-feet.

Daily discharge, in second-feet, of East Fork of Carson River near Markleeville, Calif., for the year ending September 30, 1926

		· · · · · ·					
Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	23		448				
3 4 5	23		615			58	15
6			505				
8	42	126		295		23	
1112							
13 14 15			401 385	178 214			
16 17			515			26	
18			515 705				
2122					63 63		
23. 24. 25.			355 340	107	58	26 18	
2627		535		98			
28 29 30			385				
31			370		63		

NOTE.-No record on days for which no discharge is given.

#### EAST FORK OF CARSON RIVER NEAR GARDNERVILLE, NEV.

LOCATION.—In sec. 25, T. 12 N., R. 20 E., 300 feet below dam of Douglas Power Co., 1,000 feet above highway bridge, half a mile southwest of Rodenbah ranch, and 5 miles southeast of Gardnerville, Douglas County.

Drainage area.—381 square miles.

RECORDS AVAILABLE.—April 7, 1890, to December 31, 1893; October 17, 1900, to December 31, 1906; March 27, 1908, to December 26, 1910; June 22 to October 31, 1917; and December 17, 1924, to September 30, 1926.

GAGE.—Vertical staff on right bank; read by employees of Douglas Power Co.

DISCHARGE MEASUREMENTS.—Made from highway bridge 1,000 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of large rocks and gravel. One channel at all stages. Banks high and not subject to overflow. Concrete cut-off wall immediately below gage with Cippoletti weir opening of 75 feet. Stage of zero flow, 0.1 foot gage height.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.14 feet at 7 a.m. April 26 (discharge, 1,230 second-feet); minimum, 0.28 foot for several days in August (discharge, 31 second-feet).

1890–1893, 1900–1906, 1908–1910, 1917, and 1925–26: Maximum discharge, 5,540 second-feet (estimated) December 25, 1892; minimum, 8 second-feet December 4–10 and 19–23, 1904.

ICE.—Stage-discharge relation not affected by ice.

Diversions.—Above all diversions to Carson Valley except Rodenbah pump ditch.

REGULATION.—Flow affected to some extent by operation of Douglas Power Co.'s plant.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined below 1,500 second-feet. Gage read to hundredths twice daily except as stated in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage heights to rating table. Records fair.

Cooperation.—Gage-height record furnished by Douglas Power Co.

The following discharge measurements were made:

October 22, 1925: Gage height, 0.44 foot; discharge, 63.8 second-feet.

March 23, 1926: Gage height, 1.01 feet; discharge, 259 second-feet.

June 3, 1926: Gage height, 1.30 feet; discharge, 469 second-feet.

Daily discharge, in second-feet, of East Fork of Carson River near Gardnerville, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68 68 66 64 68	73 70 68 62 62	132 129 102 84 77		82 80 80 82 92	123 129 129 129 129 154	313 365 392 429 400	933 923 1,000 1,060 1,040	513 505 497 443 407	123 117 111 111 111	75 77 77 75 70	
6	84 80 82 84 82	66 73 80 82 82	80 90 92 94 90	55	92 97 97 94 94	139 146 139 129 129	407 378 372 378 378	866 672 553 505 481	407 392 400 429 392	105 87 80 102 117	68 68 55 51 41	
11 12 13 14 15	82 82 92 105 94	84 87 84 80 73	84 80 70 64 55	73 70 68 68 73	97 90 87 80 75	129 136 146 172 207	392 392 429 536 594	497 505 528 586 689	359 313 256 221 207	111 105 90 82 73	37 33 31 31 31	977
16 17 18 19 20	97 97 92 92 90	80 77 80 84 82	57 57 66 62 73	75 82 80 73 70	66 66 70 72 77	221 261 211 194 194	672 790 611 553 645	771 808 781 933 972	194 181 157 154 150	62 55 53 55 62	31 31 31 31 31	37
21 22 23 24 25	87 77 82 80 77	77 70 68 68 70	75 73 66 57 64	64 66 64 70 68	90 90 87 87 90	194 190 226 290 290	790 913 846 1,090 1,130	942 942 837 744 466	132 126 126 129 120	70 70 70 68 68	31 31 31 33 33	
26	73 73 70 70 77 73	70 73 73 77 82	66 64 66 68 66 57	68 70 77 422 129 92	94 102 108	278 251 246 246 251 273	1, 140 1, 000 1, 060 1, 040 972	436 458 489 497 505 528	111 111 114 123 126	68 68 66 70 70	31 35 35 33 33	

Note.—Braced figures show estimated mean discharge for periods indicated, when no gage-height record was obtained.

Monthly discharge of East Fork of Carson River near Gardnerville, Nev., for the year ending September 30, 1926

Nr. 11	Discha	rge in second	l-feet	Run-off in
$\mathbf{Month}$	Maximum	Minimum	Mean	acre-feet
October November December	105 87 132	64 62 55	80. 9 75. 2 76. 1	4, 970 4, 470 4, 680
January February	108	66 123	79. 7 86. 4 192	4, 900 4, 800 11, 800
March April May	1, 140 1, 060	313 436	647 708	38, 500 43, 500
June July August	123	111 53 31	260 82. 9 43. 0	15, 500 5, 100 2, 640
September The year	1, 140	31	37. 0 198	2, 200 143, 000

#### CARSON RIVER NEAR FORT CHURCHILL, NEV.

LOCATION.—In sec. 5, T. 16 N., R. 23 E., 1 mile west of Clifton station on Mound House-Churchill branch of Southern Pacific Railroad, 9 miles west of Fort Churchill, Lyon County, and 10 miles east of Dayton.

Drainage area.—1,200 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 13, 1911, to September 30, 1926.

GAGE.—Gurley water-stage recorder on left bank a quarter of a mile above inclined staff gage.

DISCHARGE MEASUREMENTS.—Made from suspension bridge 500 feet above gage or by wading.

Channel and control.—Bed composed of sand and gravel; shifts occasionally. Extremes of discharge.—Maximum mean daily stage during year, 4.71 feet May 6 (discharge, 982 second-feet); no flow from July 18 to September 30.

1911–1926: Maximum stage, 11.5 feet January 26, 1914 (discharge, 6,150 second-feet); no flow August 27 to September 30, 1923, June 28 to October 31, 1924, and July 18 to September 30, 1926.

Ice.—No information.

DIVERSIONS.—Carson and Dayton Valleys are irrigated above station.

REGULATION.—Flow affected by diversions.

Cooperation.—Records of daily discharge and discharge measurements furnished by United States Bureau of Reclamation.

Discharge measurements of Carson River near Fort Churchill, Nev., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Dec. 17 Jan. 9 Jan. 26	Feet 2, 42 2, 51 2, 47	Secft. 97. 6 142 115		Feet 2, 86 2, 93 2, 79	Secft. 216 223 186	Apr. 23	Feet 3. 91	Secft. 608

Daily discharge, in second-feet, of Carson River near Fort Churchill, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1 2 3 4	23 23 23 23 25	116 116 114 110	131 143 165 172	109 109 105 105	249 226 205 203	218 213 213 208	176 170 176 190	707 670 670 750	127 141 139 127	23 23 23 22
5 6 7	30 37 46	109 103 103	150 137 137	114 114 114	210 208 198	205 203 205	205 335 383	982 816	116 102 109	21 21 18
8 9 10	54 63 77	109 116 131	147 139 133	116 112 112	190 186 183	205 200 203	342 335 319	648 524 452	133 109 109	18 18 18
11 12 13 14 15	80 80 85 88 85	127 121 121 129 123	133 135 137 133 119	114 112 105 102 107	186 190 188 198 200	203 195 186 181 188	286 292 273 325 398	410 357 308 292 319	97 82 74 69 61	19 17 15 14 12
16	85 93 97 102 105	119 118 121 116 118	114 114 119 143 143	112 118 121 116 103	216 221 213 200 235	203 232 249 252 221	483 659 723 591 456	339 402 478 487 505	54 43 39 41 39	10 1 <b>0</b>
21	102 109 109 102 109	116 114 114 112 118	135 135 143 143 135	97 107 105 116 114	299 283 258 258 243	210 203 205 203 226	474 • 487 519 547 601	542 505 431 402 335	37 36 35 32 28	0
26	109 105 109 119 118 114	121 123 123 123 123	129 123 114 114 114 118	114 107 109 158 452 392	243 252 240	229 237 213 213 208 181	718 805 772 834 778	296 255 226 205 183 163	27 25 24 24 23	

Monthly discharge of Carson River near Fort Churchill, Nev., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June June July August September	131 172 452 299 252 834 982 141	23 103 114 97 183 181 170 163 23 0 0	80. 8 118 134 132 221 210 455 468 70. 1 9. 7	4, 970 7, 920 8, 240 8, 120 12, 300 12, 900 27, 100 28, 800 4, 170 596 0
The year	982	0	158	114, 000

#### MARKLEEVILLE CREEK 1 ABOVE MARKLEEVILLE, CALIF.

LOCATION.—At highway bridge above mouth of Pleasant Valley Creek, three-fourths mile above Markleeville, Alpine County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 7, 1911, to September 30, 1926 (fragmentary).

Gage.—Vertical staff in two sections on left abutment of bridge; read by W. J. Clark; datum of gage raised 5.71 feet August 18, 1914.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Gravel and small boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.35 feet April 16, 17, 24, and 27 (discharge, 176 second-feet); minimum, 0.4 foot August 27 (discharge 0.1 second-foot).

1911-1926: Maximum stage recorded, 3.65 feet at 4.30 p. m. June 15, 1917 (discharge, 602 second-feet); minimum discharge recorded, 0.05 second-foot September 5, 1921.

Ice.—No record obtained during winter.

Diversions.—Town ditch, which heads above the gage, furnishes water for irrigation and domestic supply at Markleeville. A small ditch also diverts water for irrigation on Hot Springs ranch.

REGULATION.—No information.

Accuracy.—Stage-discharge relation permanent during year. Rating curve fairly well defined. Staff gage read to quarter-tenths occasionally when ranger is at ranger station. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

COOPERATION.—Gage-height record furnished by United States Forest Service.

The following discharge measurement was made:

May 14, 1926: Gage height, 1.89 feet; discharge, 75 second-feet.

<sup>&</sup>lt;sup>1</sup> Known locally as Hot Springs Creek.

Daily discharge, in second-feet, of Markleeville Creek above Markleeville, Calif., for the year ending September 30, 1926

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
12				36 36			
345			164 146			0.5	0. 3
6	10	95	86				
8 9 10	10 12 12	91	82	21	1.8		.3
11 12			91	· 16			. 3
13. 14. 15.		108 140	74 104	10		. 6	.4
16		176 176	100			. 5	
18			110 153 100	7. 5			
21		160 164		2, 5	.8		
23. 24. 25	13	153 176	46	3. 5 3. 5		.3	
26		176 164	· 44 46 46			.3 .1	
29		104	46 46	1.8			
31			40				

#### MARKLEEVILLE CREEK AT MARKLEEVILLE, CALIF.

LOCATION.—In SE. ¼ sec. 21, T. 10 N., R. 20 E., at highway bridge at Markleeville, Alpine County, three-fourths mile below junction with Pleasant Valley Creek.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 11, 1910, to September 30, 1926 (fragmentary). GAGE.—Vertical staff on left abutment of highway bridge near downstream end; read by W. J. Clark.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Gravel and boulders; somewhat shifting during high water. Banks are high and not subject to overflow.

Extremes of discharge.—Maximum stage recorded during year, 3.25 feet April 28 and May 4 (discharge, 306 second-feet); minimum, 0.95 foot October 1 (discharge, 7 second-feet).

1910-1926: Maximum stage recorded, 5.3 feet June 15, 1912 (discharge, 915 second-feet); minimum, 0.65 foot September 6, 1920 (discharge, 2.0 second-feet). Flood of March, 1907, reached a stage of about 9 feet.

Ice.—Stage-discharge relation not affected by ice during year.

DIVERSIONS.—See "Markleeville Creek near Markleeville." Water is also diverted from Pleasant Valley Creek for irrigation.

**REGULATION.**—Diversions partly regulate flow. Some storage has been developed on Pleasant Valley Creek.

Accuracy.—Stage-discharge relation permanent during year. Rating curve fairly well defined. Staff gage read to hundredths occasionally except during winter, when no observer is available. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

Cooperation.—Gage-height record furnished by United States Forest Service.

The following discharge measurement was made:

May 14, 1926: Gage height, 2.52 feet; discharge 153 second-feet.

Daily discharge, in second-feet, of Markleeville Creek at Markleeville, Calif., for the year ending September 30, 1926

Day	Oct.	Apr.	Мау	June	July	Day	Oct.	Apr.	Мау	June	July
1 2 3 4 5	7		230 265 292 306	84 84 73 63 63	23	16 17 18 19 20		265 292	176 176 141		
6 7 8 9	8. 5 8. 5 10 10	103 96 84	208 176 150	61 53	10 36	21 22 23 24 25	8. 5 8. 5 8. 5	241 265 241 292	96	13	8. 8
1112131415		197 197	158 141 176	40 15 29		26		278 306	96		

#### HUMBOLDT RIVER BASIN

#### HUMBOLDT RIVER AT PALISADE, NEV.

LOCATION.—In sec. 36, T. 32 N., R. 51 E., at highway bridge at Palisade, Eureka County, 100 feet below Southern Pacific Railroad bridge and 1 mile above mouth of Pine Creek.

Drainage area.—5,010 square miles (measured on Land Office maps).

RECORDS AVAILABLE.—November 27, 1902, to October 19, 1906, and July 26, 1911, to September 30, 1926.

Gage.—Chain gage at highway bridge; vertical staff gage a quarter of a mile downstream used January 4 to April 19; read daily by Mrs. Wendell Jones. Discharge measurements.—Made from railroad bridge half a mile below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. One channel at all stages. Control for chain gage at low stages is gravel bar 50 feet below gage; at high stages a pile-bent railroad bridge 300 feet below gage and a rock riffle a few hundred feet farther downstream become effective. Control for staff gage is rock riffle effective for both low and high stages. All controls fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.73 feet (staff gage) March 17 (discharge, 459 second-feet); minimum, 1.02 feet (chain gage) August 3 and 5 (discharge, 6 second-feet).

1903-1906, 1911-1926: Maximum stage recorded, 8.6 feet at 10 a.m. March 3, 1921 (discharge, 4,300 second-feet); minimum discharge, that of August 3 and 5, 1926.

Ice.—Stage-discharge relation affected by ice.

DIVERSIONS.—Some water diverted for irrigation in valleys above canyon.

REGULATION.—Flow affected by irrigation diversions above.

Accuracy.—Stage-discharge relation permanent. Rating curves well defined. Gage read to hundredths once daily except as indicated in footnote to table of daily discharge. Daily discharge ascertained by applying daily gage height to rating table. Discharge estimated for days when gage heights were not recorded. Records of daily discharge good, estimates fair.

The following discharge measurements were made. The gage heights refer to the chain gage.

October 27, 1925: Gage height, 2.36 feet; discharge, 125 second-feet. March 18, 1926: Gage height, 3.39 feet; discharge, 391 second-feet. May 28, 1926: Gage height, 2.48 feet; discharge, 155 second-feet.

Daily discharge, in second-feet, of Humboldt River at Palisade, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	94 97 94 91 94	107 110 117 117 117 121	176 181 204 190 199	75 70 70	103 112 107 107 126	344 358 351 336 344	274 260 254 235 260	159 159 155 121 91	70 65 63 59 57	25 24 22 22 22 20	9 8 6 9 6	9 8 9 10 9
6	91 94 97 100 100	124 131 139 143 151	204 199 194 185 194	74 78 74 70 74	142 169 163 180 198	358 366 374 390 398	287 322 329 294 274	124 139 143 151 143	56 59 57 63 59	22 19 20 100 56	11 10 11 12 12	8 9 10 11 11
11 12 13 14 15	103 107 103 100 100	155 163 163 159 155	194 199 176 163 147	70 70 70 74 126	192 204 216 222 210	351 344 382 441 424	287 260 267 267 235	124 121 124 117 107	57 57 54 46 43	40 34 28 26 25	11 11 11 11 11	11 11 13 13 14
16	103 103 100 103 100	163 168 172 163 151	135 117 135 163 155	112 103 94 78 67	222 235 228 204 192	441 459 419 406 424	228 222 228 260 239	97 91 88 85 85	40 38 38 36 36	22 20 20 23 25	.10 .11 11 9 10	13 12 13 14 13
21	97 100 103 110 117	139 131 124 117 128	143 147 155	86 116 103 82 78	186 192 180 198 216	441 432 428 424 358	218 204 194 181 163	88 91 135 143 168	36 33 31 29 28	22 20 19 18 17	11 10 9 9	14 15 14 15 16
26	124 131 128 124 117 110	139 151 155 163 172	130	70 67 70 94 107 107	222 235 254	344 336 351 329 314 308	172 168 163 159 155	172 159 151 128 110 94	26 29 30 28 28	16 15 14 13 12 10	9 8 9 8 9 10	19 17 18 19 20

 $Note. \hbox{$-$Note.$} -No~gage-height~record.~~Dec.~24~to~Jan.~3,~Mar.~23,~July~17,~18,~22-31;~discharge~estimated.~Braced~figures~show~estimated~mean~discharge~for~periods~indicated.$ 

Monthly discharge of Humboldt River at Palisade, Nev., for the year ending September 30, 1926

25.10	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	172 204 126 254 459 329 172 70 100	91 107 67 103 308 155 85 26 10 , 6	104 143 161 83. 2 186 380 235 125 45. 0 24. 8 9. 7 12. 8	6, 400 8, 510 9, 900 5, 122 10, 300 23, 400 7, 690 2, 680 1, 520 596 765
The year	459	6	126	90, 90

#### HUMBOLDT RIVER AT COMUS. NEV.

LOCATION.—In NW. ¼ sec. 14, T. 36 N., R. 41 E., at Comus, Humboldt County. Drainage area.—Not measured.

RECORDS AVAILABLE.—September 25, 1917, to June 30, 1923, and May 23, 1925, to May 31, 1926, when station was discontinued.

GAGE.—Inclined staff on left bank 160 feet above Southern Pacific Railroad section house; read by Alex Erguiaga.

DISCHARGE MEASUREMENTS.—Made from cable or by wading near gage.

Channel and control.—Bed composed of fine gravel and sand. Channel very uniform in cross section; banks covered with willows. Low-water control is gravel bar 150 feet downstream.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 3.9 feet December 30 (discharge, 429 second-feet); minimum, 1.21 feet May 15 (discharge, 11 second-feet).

1917-1926: Maximum stage recorded, 10.9 feet June 24-26, 1921 (discharge, 2,700 second-feet); no flow during periods in 1918, 1919, 1920, and 1924.

Ice.—Stage-discharge relation usually affected by ice.

DIVERSIONS.—Water diverted all along river both above and below station.

REGULATION.—None except by diversion.

Accuracy.—Stage-discharge relation changed during winter. Rating curve well defined. Gage read to hundredths once daily from October 1 to May 31. Daily discharge ascertained by applying daily gage height to rating table; shifting-control method used December 1 to February 28; parallel shift March 1 to May 31. Records good.

The following discharge measurements were made:

October 17, 1925: Gage height, 1.91 feet; discharge, 88.3 second-feet.

March 19, 1926: Gage height, 3.45 feet; discharge, 344 second-feet.

May 28, 1926: Gage height, 1.49 feet; discharge, 31.6 second-feet.

Daily discharge, in second-feet, of Humboldt River at Comus, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
1	72	101	146	325	321	229	121	129
2	59	118	146	321	325	231	71	113
3	72	101	162	307	337	233	69	96
4	62	101	213	305	355	231	59	86
5	72	119	231	303	339	249	57	83
6	63	119	196	289	341	282	55	82
7	72	132	184	321	319	285	45	72
8	63	119	183	321	305	300	35	69
9	72	116	231	323	303	301	26	68
10	59	121	213	307	305	318	24	59
11	86	119	217	305	319	319	24	57
12	101	121	231	307	303	321	24	55
13	116	119	213	305	301	323	18	46
14	101	132	201	309	265	319	17	34
15	116	148	162	307	233	321	17	11
16	101	164	179	307	231	325	16	12
17	88	150	249	319	229	323	12	12
18	89	137	267	321	215	339	17	24
19	88	148	285	323	231	348	100	16
20	89	137	267	325	229	354	186	17
21	86	148.	253	337	215	339	162	17
22	90	148	267	325	217	341	161	12
23	101	137	285	323	229	336	159	14
24	86	135	291	323	231	323	164	58
25	116	137	303	321	233	301	162	45
26	101	148	307	323	233	285	176	44
27	116	135	321	325	235	283	162	36
28	101	148	343	321	233	246	161	33
29	116	135	339	323		195	145	26
30	101	134	429	325		154	130	25
31	116	1	339	325		129	100	24
V4	110		000	520		120		,

Monthly discharge of Humboldt River at Comus, Nev., for the year ending September 30, 1926

Month	Discha	arge in secon	d-feet	Run-off in
Month .	Maximum	Minimum	Mean	acre-feet
October November December January February March April	164 429 337 355 354	59 101 146 289 215 129 12	89. 4 131 247 317 273 287 85. 8 47. 6	5, 500 7, 800 15, 200 19, 500 15, 200 17, 600 5, 110 2, 930
The period				88, 80

#### HUMBOLDT RIVER NEAR OREANA, NEV.

LOCATION.—In sec. 35, T. 29 N., R. 32 E., 2 miles above highway bridge near J. J. McCarthy's ranch and 2 miles southwest of Oreana, Pershing County. Drainage area.—13,800 square miles (measured on General Land Office map). Records available.—January 27, 1896, to December 31, 1909; September 7, 1910, to September 30, 1922; and September 24, 1924, to September 30, 1926; fragmentary.

Gage.—Stevens water-stage recorder on right bank; inspected by John Runner and J. C. Young.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet below gage or by wading. Channel and control.—Bed composed of sand. Right bank high and comparatively clean. Left bank not subject to overflow but subject to caving. Principal control not well defined but is probably about half a mile below gage, where bed is composed of firm clay; fairly permanent. Low-water control is about 50 feet below gage.

EXTREMES OF DISCHARGE.—1896-1926: Maximum stage recorded, 12.0 feet May 12, 1897 (discharge, 3,050 second-feet); no flow during periods in 1905, 1915, 1918, 1919, and 1920.

ICE.—Stage-discharge relation seriously affected by ice every winter.

DIVERSIONS.—Station is above all diversions for Lovelock district, but considerable water is diverted above station for direct irrigation and storage.

REGULATION.—Distribution of flow is affected by water stored in and released from Taylor-Pitt Reservoirs, near Humboldt. Water diverted from river is measured in Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City. (See p. 124.) Water returned to river is measured in Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt. (See p. 125.)

ACCURACY.—Stage-discharge relation shifting. Standard rating curve well defined. Water-stage recorder operated only for intermittent periods. Daily discharge ascertained by shifting-control method. No attempt has been made to estimate mean discharge for periods of missing gage heights. Records of daily discharge given are fair.

The following discharge measurements were made:

October 24, 1925: Gage height, 1.28 feet; discharge, 21.4 second-feet. March 22, 1926: Gage height, 2.02 feet; discharge, 141 second-feet. May 30, 1926: Gage height, 1.71 feet; discharge, 99.8 second-feet.

Daily discharge,	in second-feet, of	Humboldt	River near	Oreana,	Nev., for	· the year
	ending	September	30, 1926			

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July
1					42	243	137		113	206
2							135		102	179
3							135		109	165
4							129		115	199
5							127		109	208
б				ļ		l	125		94	215
7							119		104	215
8							113		111	206
9							107		94	202
		12					92		79	195
10		12					92		19	
11			79	l		1	96	255	66	193
12			58				92		56	183
13			58	31	243		"-		55	162
14					253	135			66	158
15					200	100			79	156
16									86	153
17									90	140
18									107	127
19									129	131
20									133	123
21									123	113
22	i		i	<b></b>	l	144			139	100
23	l					158	<b></b>	l	156	90
24	21	26			l	155			158	77
25	20					140	201		167	68
26	19	į.	23	· ·		139	i		175	63
								123	181	55
						148				48
						148	1		197	48
29						149			204	
30		i		48		146		98	204	
31				46	l	140		111		

NOTE.—No record on days for which discharge is not given. See records of Humboldt-Lovelock Irrigation, Light & Power Co.'s canals.

#### HUMBOLDT RIVER NEAR LOVELOCK, NEV.

LOCATION.—In NW. ¼ sec. 11, T. 25 N., R. 31 E., 1,500 feet below dam and reservoir on Big 5 ranch and 9 miles south of Lovelock, Pershing County.

Drainage area—14,200 square miles (measured on General Land Office maps).

RECORDS AVAILABLE.—February 7, 1912, to September 30, 1926, fragmentary.

GAGE.—Vertical staff gage on right bank read by H. F. Sommer.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

Channel and control.—Bed composed of firm clay. Control fairly permanent. One channel at all stages.

EXTREMES OF DISCHARGE.—1912-1926: Maximum stage recorded, 5.90 feet May 29 and 30, 1922 (discharge, 1,700 second-feet); stream dry for periods in nearly every year.

Ice.—Stage-discharge relation seldom affected by ice.

Diversions.—Below all irrigation diversions but one.

REGULATION.—Flow regulated by irrigation diversions and storage.

Station was visited and flow was estimated at 1 second-foot on March 21, 1926.

Monthly run-off, in acre-feet, of Humboldt River near Lovelock, Nev., for the year ending September 30, 1926

October	972	March	1,090	July	0
November	. 0	April	´ 0	August	0
December	0	May	0	September	0
January	0	June	0	-	
February	4.530	July	0	The year	6, 590

#### MARYS RIVER NEAR DEETH, NEV.

LOCATION.—In NW. ¼ sec. 31, T. 40 N., R. 60 E., at bridge 300 feet east of Mala Vista ranch house of Nevada Land & Livestock Co. and 19 miles north of Deeth, Elko County.

DRAINAGE AREA.—355 square miles (measured on General Land Office map).

RECORDS AVAILABLE.—November 24, 1902, to July 14, 1903; January 17, 1912, to September 30, 1926.

Gage.—Vertical staff on right bank near downstream side of bridge; read by Herbert Clayton.

DISCHARGE MEASUREMENTS.—Made from bridge at gage or by wading.

Channel and control.—Bed composed of gravel and loose sand; banks below gage subject to caving; one channel at all stages. Rock and gravel control 25 feet below gage, slightly shifting.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.10 feet on April 15, 21-23, and May 5 (discharge, 136 second-feet); minimum discharge, 1 second-foot July 3-11 and August 2 to September 30.

1912-1926: Maximum stage recorded, 7.70 feet at 2 p. m. May 8, 1922 (discharge, 616 second-feet); practically no flow part of August and September,

ICE.—Stage-discharge relation affected by ice.

Diversions.—Station is below all diversions except one small ditch on Mala Vista ranch and diversions on Cross ranch, about 12 miles below.

REGULATION.—During low-water periods flow is affected by diversions.

ACCURACY.—Stage-discharge relation changed May 22; affected by ice December 27 to February 3. Rating curves well defined. Gage read to hundredths once daily except February 21–27. Daily discharge ascertained by applying daily gage height to rating table. Discharge estimated for ice-affected period and for period when no gage heights were obtained. Records fair.

The following discharge measurements were made:

October 14, 1925: Gage height, 2.40 feet; discharge, 8.6 second-feet.

March 17, 1926: Gage height, 3.06 feet; discharge, 40.0 second-feet:

May 25, 1926: Gage height, 3.24 feet; discharge, 37.2 second-feet.

Daily discharge, in second-feet, of Marys River near Deeth, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 2 3 4 5	5 5 5 5	7 7 7 7	6 6 6 6		} 7	10 9 10 13 15	35 34 34 34 35	128 130 132 134 136	8 8 8 7 7	2 2 1 1 1	2 1 1 1 1	1 1 1 1
6	6 6 6 6 6	7 .7 .7 .7	6 6 7 6		7 7 6 7 7	17 17 18 21 23	51 72 86 96 106	132 126 106 91 • 91	7 7 7 7	1 1 1 1	1 1 1 1	1 1 1 1
11	6 6 7 6	7 7 7 7	6 6 7 6		8 7 7 7 6	23 24 25 26 30	112 116 124 134 136	91 43 30 30 30	7 7 6 6 6	1 4 4 4 4	1 1 1 1	1 1 1 1
16	6 6 7 7	6 6 6 6	7 6 6 6	6	7 7 8 7 7	36 40 43 51 51	112 114 120 126 134	30 30 31 32 34	6 6 6 6	4 4 4 3	1 1 1 1 1	1 1 1 1
2122232425	7 7 7 7	6 6 6 6	6 6 6 6		8	43 40 39 36 32	136 136 136 132 126	36 32 29 35 37	6 6 5 5	3 3 3 3	1 1 1 1	1 1 1 1
26	7 7 7 7 7	6 6 6 6	6		8	32 32 32 34 32 32	126 128 128 126 128	39 35 22 14 10 9	4 3 2 2 2 2	2 2 2 2 2 2 2	1 1 1 1 1	1 1 1 1

Monthly discharge of Marys River near Deeth, Nev., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October.	7	5	6. 3	387
November December	7	6	6. 5 6. 1 6. 0	387 375 369
January February March		6	7. 3 28. 6	405 1, 760
April May	136	34 9	104 60, 8	6, 190 3, 740
June July	8	2 1	5. 9 2. 4	351 148
AugustSeptember	2	1 1	1. 0 1. 0	61 60
The year	136	1	19. 6	14, 200

#### SOUTH FORK OF HUMBOLDT RIVER NEAR ELKO, NEV.

LOCATION.—In sec. 19, T. 33 N., R. 55 E., at head of canyon below Cowling ranch, 4 miles above mouth and 10 miles southwest of Elko, Elko County.

Drainage area.—Not measured (1,150 square miles at old station, 1½ miles upstream).

RECORDS AVAILABLE.—August 29, 1896, to December 31, 1909; September 9, 1910, to January 31, 1921; April 1 to November 30, 1921; March 29 to September 30, 1922; and October 1, 1923, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank 1½ miles below highway bridge inspected by Albert Lamori.

DISCHARGE MEASUREMENTS.—Made from cable 110 feet above gage or by wading. Channel and control.—Bed composed of gravel and sand. Basalt dike a short distance below gage affords well-defined control. One channel at all stages.

Extremes of discharge.—Maximum stage during year, 2.34 feet at 3 p. m. May 21 (discharge, 244 second-feet); stream dry July 21 to September 30. 1896-1926: Maximum discharge recorded, 2,400 second-feet January 26, 1914; river dry at times in 1915, 1916, 1918, 1919, 1921, 1924, 1925, and 1926. Ice.—Stage-discharge relation seriously affected by ice during winter.

DIVERSIONS.—Below all tributaries and all diversions except those of Hunter & Banks ranch, 3 miles downstream.

REGULATION.—Flow affected by diversions above.

Accuracy.—Stage-discharge relation permanent during year; affected by ice November 22 to February 14. Rating curve well defined. Water-stage recorder operated satisfactorily October 13-18 and March 16 to July 13; weekly gage reading obtained throughout year. Daily discharge determined by applying to rating table mean daily gage height determined from recorder graph or staff reading. Discharge estimated for periods of missing gage-height record from temperature charts and hydrographic comparison with Humboldt River at Palisade. Records for estimated periods fair; others good.

Discharge measurements of South Fork of Humboldt River near Elko, Nev., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oet. 13	Feet 0. 95 . 91	Secft. 23. 4 21. 6	Mar. 16	Feet 1, 55 2, 19	Secft. 88. 5 210

Daily discharge, in second-feet, of South Fork of Humboldt River near Elko, Nev., for the year ending September 30, 1926

Day	Oct.	Mar.	Apr.	May	June	July	Day	Oct.	Mar.	Apr.	Мау	June	July
1 2 3	20 20 21 21	65	94 90 86 85 86	173 165 169 161 188	94 90 80 73 66	2 2 3 3 2	16	23 22 23	91 92 97 96 97	108 114 127 138 142	48 81 100 118 161	15 13 11 8 7	1 1 1 1
6 7	21	64	98 98 98 94 91	177 147 110 91 80	57 49 49 55 61	3 2 3 16	21 22 23 24 25	25	105 111 108 111 110	138 136 134 142 145	216 218 216 205 186	6 6 7 7	
11	21 22 24 24 24 23	82 85	94 105 102 100 102	60 48 39 34 36	49 39 29 23 18	6 14 2 1 1	26	22	106 103 102 92 97 96	153 151 163 181 194	147 114 94 78 82 88	4 3 3 2 2	

Note.—Braced figures show estimated mean discharge for periods indicated. Stream dry July 21 to Sept. 30.

Monthly discharge of South Fork of Humboldt River near Elko, Nev., for the year ending September 30, 1926

	Discha	rge in secon	i-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October November December January February March April May June June	111 194 218 94 16		23, 1 20 20 215 35 86, 6 120 124 31, 1 2, 3	1, 422 1, 790 1, 230 922 1, 940 5, 322 7, 140 7, 620 1, 856	
August September	. 0	0	0	,0	
The year	. 218	0		29, 40	

a Estimated.

#### LITTLE HUMBOLDT RIVER NEAR PARADISE VALLEY, NEV.

LOCATION.—In NE. ¼ sec. 19, T. 41 N., R. 41 E., 300 feet south of Humboldt Hot Springs, 40 miles northeast of Winnemucca, and 11 miles southeast of Paradise Valley, Humboldt County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—October 1, 1921, to September 30, 1923, and April 1, 1924, to September 30, 1926.

Gage.—Stevens continuous water-stage recorder on right bank; inspected by G. E. Nickols.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge 4 miles above gage.

CHANNEL AND CONTROL.—Bed composed of firm sand and clay. One channel for all stages. Control is shale ledge 40 feet below gage.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 66 second-feet on March 7; minimum, 8 second-feet for several days in June.

1921-1926: Maximum stage, 9.30 feet at 8 a. m. May 8, 1922 (discharge, 331 second-feet); minimum discharge recorded, 5 second-feet December 28, 1924.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Above all diversions in Paradise Valley. Bull Head ranch diverts in valley above.

REGULATION.—Affected by Bull Head irrigation diversion.

ACCURACY.—Stage-discharge relation shifted during year. Normal rating curve fairly well defined. Operation of water-stage recorder satisfactory except as stated in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph, using shifting-control method from October 1 to February 7. Discharge estimated for days of missing gage-height record. Records fair.

The following discharge measurements were made:

October 18, 1925: Gage height, 3.08 feet; discharge, 14.6 second-feet.

March 20, 1926: Gage height, 4.40 feet; discharge, 41.7 second-feet.

May 29, 1926: Gage height, 2.96 feet; discharge, 10.1 second-feet.

Daily discharge, in second-feet, of Little Humboldt River near Paradise Valley, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	,	15	20	13 13 13 13 13	16 17 17 17 19	43 49 55 58 60	14 13 13 12 13	18 19 19 19 20	10 10 10 10 9	9 9 9 9	9 9 9	9 10 9 10 9
6 7 8 9 10	12	15	21 20	13 13 13 13 12	24 32 40 52 55	63 66 55 50 50	15 15 15 17 17	20 21 23 27 27	9 8 8 8	9 9 9 9	9 9 9 9	10 9 10 9 10
1112131415		16	18	12 12 12 12 12 12	52 53 46 39	45 44 40 39	17 19 21 21 21	26 26 24 22 19	8 9 10 9	9 9 9 9	9 9 9 9	9 10 9 10 10
16	15 16 16	15	18	13 13 13 13 13	30	40	21 21 23 25 27	17 17 17 15 14	9 9 9 9	9 9 9 9	. 9 9 9 9	10 10 10 10 10
21	16 16	13	17	13 13 13 14 14	21 21 22 19 21	38	28 27 26 24 24	13 13 13 12 12	9 8 8 9	9 9 9 9	9 9 9 9	10 10 10 10 10
26	] 16	15 15 15	15 14	14 13 13 14 14 14	22 30 36	15 15 14 14	23 21 20 20 19	12 13 13 10 10 10	9 8 8 8 8	9 9 9 9	9 9 9 9	11 11 11 11 11

Note.—No gage-height record Oct. 1-17, 23-31, Nov. 2-7, 9-14, 16-21, 23-28, 31, Dec. 1-5, 7-12, 14-19, 21-26, 28-31, Jan. 1, 2, 12-18, Feb. 13, 15-19, 27, Mar. 5, 6, 8, 15-19, 22-27, and Aug. 4-13; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Little Humboldt River near Paradise Valley, Nev., for the year ending September 30, 1926

	Discha	rge in second	-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January Pebruary March April May June June July Angust September	16 55 66 28 27 10	12 16 14 12 10 8 9 9	13. 8 15. 0 18. 0 13. 1 30. 1 39. 1 19. 7 17. 4 8. 8 9. 0 9. 0	844 899 1, 111 800 1, 677 2, 440 1, 171 1, 077 525 555 555
The year	66	8	16. 8	12, 20

#### MARTIN CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—In SE. ¼ NE. ¼ sec. 11, T. 42 N., R. 40 E., 1½ miles above Silver State flour mill and 8 miles northeast of Paradise Valley, Humboldt County. Drainage area.—Not measured.

RECORDS AVAILABLE.—October 1, 1921, to September 30, 1926.

Gage.—Stevens continuous water-stage recorder on right bank; inspected by Edmond Recanzone.

DISCHARGE MEASUREMENTS.—Made from bridge 2½ miles downstream or by wading.

CHANNEL AND CONTROL.—Channel of rock and earth. One channel at all stages.

Control is rock and gravel riffle immediately below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, 6.15 feet March 4 (discharge, about 265 second-feet); minimum discharge, 7 second-feet for several days in July and September.

1921-1926: Maximum stage, about 8.6 feet February 4, 1925 (discharge, about 450 second-feet); minimum, 3.54 feet parts of August 16-18, 1923. (discharge, less than 5 second-feet).

ICE.—Stage-discharge relation slightly affected by ice.

REGULATION.—None.

DIVERSIONS.—None above gage.

Accuracy.—Stage-discharge relation affected by ice January 4–18; affected by moss during summer and fall. Rating curve well defined below 70 second-feet; extended above. Water-stage recorder operated satisfactorily except as stated in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage height or weekly gage reading to rating table, using shifting-control method July 1 to September 30. Discharge interpolated or estimated for days of missing gage heights. Records good; estimates fair.

The following discharge measurements were made:

October 18, 1925: Gage height, 3.78 feet; discharge, 10.4 second-feet.

March 20, 1926: Gage height, 4.27 feet; discharge, 39.2 second-feet.

May 29, 1926: Gage height, 4.12 feet; discharge, 28.2 second-feet.

Daily discharge, in second-feet, of Martin Creek near Paradise Valley, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8 8 8 8	11 11 11 11 10	14 28 18 16 17	10 10 10	13 14 16 34 28	88 88 78 110 78	29 27 26 27 30	94 85 80 82 112	24 23 22 21 20	10 9 8 8 8	8 8 8 8	8 8 8 8 8
6 7	10 10 9 9	10 10 10 10 10	16 15 14 13		64 48 50 46 68	50 42 42	41 44 58 54 50	97 83 76 66 63	20 19 18 17 17	8 8 9 9 8	8 8 8 8	8 8 8 8
11 12 13 14 15	12 15 18 14 12	10 10 11 10 10	13 13 13 10 10	10	42 21 21 18 18	59 68 68	55 56 60 66 70	56 54 55 54 54	16 15 15 15 15	8 8 7 8 7	8 8 8 8	8 8 8 8
16	12 11 11 11 11	11 11 11 10 10	11 12 12 12 12 9	10 10	17 16 16 16 16	73 68 60 50 40	81 91 103 96 90	55 55 53 50 49	15 14 14 14 14	7 7 7 7	8 8 8 8 8	8 8 8 8 7
21	11 -11 11 11 11	9 9 10 11 11	13 13 12 11 11	10 10 10 11 11	16 15 15 18 27	37 38 44 48 41	89 89 83 79 79	46 44 42 41 38	14 14 13 12 12	7 7 8 8 8	8 8 8 8	7 7 7 8 8
26	11 11 11 11 11 11	11 12 12 12 12 12	11 11 11 10 9 9	10 10 10 11 13 13	42 68 78	36 34 33 28 32 31	82 85 87 88 90	35 33 30 28 26 25	11 10 10 10 10	8 8 8 8 8	8 8 8 8 8	8 8 8 8

Note.—Stage-discharge relation affected by ice Jan. 4–18. No gage-height record Jan. 2, Mar. 9–12, 18, 19, June 7–12, 14–19, Sept. 22–25, 27–30; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Martin River near Paradise Valley, Nev., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	13 78 110 103 112 24 10	13 28 26 25 10 7	10. 8 10. 6 12. 9 10. 3 30. 8 53. 7 66. 8 15. 5 7. 9 8. 0 7. 9	664 631 793 663 1,710 3,300 3,970 3,490 922 486 492 470
The year	112	7	24. 3	17, 600

#### COTTONWOOD CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—In SW. ¼ sec. 3, T. 42 N., R. 39 E., at Case ranch, 5 miles north of Paradise Valley, Humboldt County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 22, 1925, to September 30, 1926.

GAGE.—Vertical enameled staff on left bank; read by J. S. Case.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed of gravel; one channel. Banks not subject to overflow. Control of large boulders.

Ice.—Stage-discharge relation probably affected by ice.

DIVERSIONS.—Several diversions above and below station.

REGULATION.—None, except by diversions.

Accuracy.—Stage-discharge relation permanent. Rating curve fairly well defined. Gage read to hundredths once or twice a day with occasional omissions. Daily discharge ascertained by applying daily gage height or mean daily gage height to rating table. Discharge interpolated for days of missing gage heights. Records fair.

The following discharge measurements were made:

October 18, 1925: Gage height, 4.24 feet; discharge, 1.7 second-feet.

March 20, 1926: Gage height, 4.55 feet; discharge, 9.0 second-feet.

May 29, 1926: Gage height, 4.54 feet; discharge, 9.1 second-feet.

Daily discharge, in second-feet, of Cottonwood Creek near Paradise Valley, Nev., for the year ending September 30, 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1			4 9 4 4 4	2 2 2 2 2 2	2 2 3 3 4	2 4 4 4	7 7 6 9 12	18 18 18 22 22	8 7 6 4 4
6	2 7 2 2 2 2 2	1	4 4 4 3	2 2 2 2 2	4 4 2 4 4	4 4 6 6 6	16 14 14 13 13	19 20 17 13 11	4 3 4 3 3
11	3 5 4 3 2	1 2 2 2 2 1	2 2 2 2 2	2 2 1 2 2	2 2 4 1 1	4 6 6 7 6	14 14 14 15 16	11 11 10 10 10	2 2 2 2 2
16	2 1 2 2 2 2	1 1 1 1 2	2 2 2 2 3	2 2 2 2 2 2	1 2 2 2 2 2	9 10 10 11 9	18 18 18 17 16	9 11 13 13 14	2 2 2 2 2 2
21	1 1 1 2 1	2 2 2 2 2 2	4 4 4 4	1 1 1 1 1	2 2 4 4 4	9 9 8 9 11	15 15 15 16 15	14 13 13 12 13	2 2 2 2 2 1
26	1 1 1 1 1	2 2 2 2 2 3	4 4 3 2 2 2	2 2 2 2 2 2 2	4 5 2	10 11 9 10 10	16 17 17 16 16	14 11 10 9 9 8	1 1 1 1

Note.—Flow less than I second-foot Oct. 1-5, Nov. 1-9, and July I to Sept. 30.

Monthly discharge of Cottonwood Creek near Paradise Valley, Nev., for the year ending September 30, 1926

25. 11	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June	7 3 9 2 5 11 18 22 8	0 0 2 1 1 2 6 8	1.7 1.3 3.3 1.8 2.8 7.4 14.3 13.4 2,7	105 77 203 111 156 455 851 824
July	0	0	0.1	8 0 0
The year	22	0	4.1	2,950

## HUMBOLDT-LOVELOCK IRRIGATION, LIGHT & POWER CO.'S FEEDER CANAL NEAR MILL CITY, NEV.

LOCATION.—In SW. ¼ sec. 29, T. 33 N., R. 35 E., a quarter of a mile below head of canal and 2 miles north of Mill City, Pershing County.

RECORDS AVAILABLE.—February 19, 1914, to September 30, 1926; fragmentary. GAGE.—Stevens continuous water-stage recorder on left bank; inspected by G. L. Pitt.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage or by wading.

Channel and control.—Earth section. Channel control. Stage-discharge relation affected by growth of aquatic plants and by wash from several small gullies below station.

Ice.—Stage-discharge relation generally affected by ice.

DIVERSIONS.-None.

REGULATION.—Flow regulated by head gates.

Accuracy.—Stage-discharge relation permanent during year. Rating curve fairly well defined. Water-stage recorder operated satisfactorily while water was in canal except October 8-18 and December 10-14. Discharge obtained by applying mean daily gage height to rating table. Daily-discharge record good; estimates, fair.

Canal diverts from Humboldt River in NW. ¼ sec. 29, T. 33 N., R. 35 E., for storage in Taylor-Pitt Reservoirs, near Humboldt. Water is returned to river during irrigation season about 3 miles west of Humboldt, through Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal, and carried in natural channel to head gates of canals serving Lovelock district.

The following discharge measurements were made:

October 19, 1925: Gage height, 3.42 feet, discharge 94.7 second-feet.

March 21, 1926: Gage height, 1.35 feet; discharge 8.9 second-feet.

Daily discharge, in second-feet, of Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Nev., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1 2 3 4		90 95 98 103 107	164 164 159 158 158	115 128 160 162 165	128 121 106 94 87	11 10 10 10 10	16 17 18 19 20	75 94 89	124 126 128 130 134	169 166 134 116 103	159 158 173 167 162	22 20 18 16 16	11 10 9 9
6 7 8 9	6	109 107 103 97 101	160 150 143 146	164 162 162 156 151	79 73 68 66 66	10 44 80 93 65	21 22 23 24 25	87 84 86 92 95	147 144 143 144 145	99 99 102 103 100	150 138 137 149 145	15 14 13 11 12	8 8 8 7
11	75	108 116 120 121 123	160	154 156 156 151 143	62 38 33 29 24	34 21 16 14 12	26 27 28 29 30	93 80 74 78 84	146 146 147 152 160	99 107 127 134 126	146 144 143 137 132	12 12 11	
	.						31	89		119	132		

Note.—Canal dry Oct. 1-6 and Mar. 26 to Sept. 30. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Nev., for the year ending September 30, 1926

<b>TF</b>	Discha	rge in secon	1-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October	160	0 90	63. 1 124	3, 880
November December January		99 115	138 150	7, 380 8, 480 9, 220
February March	128 93	11 0	45. 2 16. 7	2, 510 1, 030
The year				32, 500

## HUMBOLDT-LOVELOCK IRRIGATION, LIGHT & POWER CO.'S OUTLET CANAL NEAR HUMBOLDT, NEV.

LOCATION.—In SE. ¼ sec. 30, T. 32 N., R. 33 E., at outlet of lower Taylor-Pitt Reservoir, 2½ miles west of Humboldt, Pershing County.

RECORDS AVAILABLE.—February 15, 1914, to September 30, 1920, and October 1, 1921, to September 30, 1926.

Gage.—Vertical staff gage on right bank 100 feet above weirs; read by employees of reservoir company when gates were open.

DISCHARGE MEASUREMENTS.—Made from footbridge a quarter of a mile downstream or by wading.

CHANNEL AND CONTROL.—Two 8-foot Cippoletti weirs form permanent control. Stage of zero flow, gage-height 0.04 foot; determined April 7, 1917.

ICE.—Gates usually closed during winter.

DIVERSIONS.—None.

REGULATION.—Flow regulated by reservoir outlet gates.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined below 150 second-feet; extended above. Staff gage read when reservoir gates were open. Daily discharge ascertained by applying daily gage height to rating table. Records good.

Canal conducts stored water released from Taylor-Pitt Reservoirs to Humboldt River in SW. ¼ sec. 31, T. 32 N., R. 33 E., for irrigation in Lovelock Valley, several miles downstream.

The following discharge measurements were made:

March 21, 1926: Gage height, 0.09 foot; discharge, 1.0 second-foot.

May 30, 1926: Gage height, 1.35 feet; discharge, 91.9 second-feet.

June 4, 1926: Gage height, 1.45 feet; discharge, 91.9 second-feet.

Daily discharge, in second-feet, of Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev., for the year ending September 30, 1926

Day	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1		54 52 50 46 45	200 207 220 241 250	79 88 96 96 83	199 154 221 229 243	50 52 56 60	23 12 12 16 8
6		34 30 28 13	272 270 267 267 267	96 97 79 68 44	243 229 225 212 207	60 54 56 52 45	8 8 8 7 6
11 12 18 14 15		12 12 12 12 38 64	259 269 247 223 239	40 40 57 74 80	190 170 157 157 150	23 23 26 32 32	6 6 6 6
16		67 68 81 83 84	225 198 182 160 145	84 101 125 127 112	131 115 125 118	20 23 28 28 28	6 5 6 6
21	7 30 38	90 110 115 120 148	148 119 108 108 108	135 157 157 167 183	90 84 67 34	23 33 42 44 38	3 3 3 3 3
26. 27. 28. 29. 30.	52 54 54 54 54 54	170 173 187 190 190	108 100 96 87 89	195 216 225 225 225 225	6 2 9 22 26 42	35 35 35 28 23 23	3 2 1 1 1

Monthly discharge of Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev., for the year ending September 30, 1926

	Discha	Discharge in second-feet					
Month	Maximum	Minimum	Mean	Run-off in acre-feet			
October November December January February March April May June July August September The year	54 190 272 225 243 60		• 1 • 1 • 1 • 1 • 1 13. 5 79. 3 186 118 128 37. 5 6. 2	61 60 61 51 56 830 4, 720 11, 400 7, 020 7, 870 2, 310 369			

a Estimated, seepage water only.

# PYRAMID AND WINNEMUCCA LAKES BASIN LAKE TAHOE AT TAHOE, CALIF.

LOCATION.—In SE. ¼ sec. 6, T. 15 N., R. 17 E., near outlet of lake at Tahoe, Placer County.

Drainage area.—519 square miles (including water surface of lake, which is 193 square miles).

RECORDS AVAILABLE.—1900 to September 30, 1926.

GAGE.—Vertical staff fastened to piling of boat landing near outlet; read once a day by employee of United States Bureau of Reclamation. Datum is 6,220 feet above sea level. Mean low-water elevation of lake is 6,226.0 feet.

EXTREMES OF STAGE.—Maximum stage recorded during year, 5.26 feet June 8-10; minimum, 3.51 feet September 30.

1900-1926: Maximum stage recorded, 11.26 feet July 14, 15, 17, and 18, 1907; minimum, 2.84 feet October 26, 1924.

ACCURACY.—Gage read to hundredths once daily.

COOPERATION.—Record furnished by United States Bureau of Reclamation.

Daily gage height, in feet, of Lake Tahoe at Tahoe, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4. 52 4. 50 4. 48 4. 47 4. 47	4. 26 4. 24 4. 24 4. 22 4. 20	4. 09 4. 09 4. 09 4. 07 4. 06	3. 98 3. 98 3. 97 3. 96 3. 96	4. 05 4. 07 4. 11 4. 13 4. 14	4, 42 4, 42 4, 42 4, 42 4, 43	4. 44 4. 44 4. 45 4. 58	4. 97 4. 98 5. 00 5. 00 5. 05	5, 22 5, 22 5, 22 5, 23 5, 24	5, 03 5, 02 5, 01 5, 00 4, 99	4. 61 4. 60 4. 58 4. 55 4. 55	4. 07 4. 04 4. 03 4. 02 4. 01
6 7 8 9 10	4.46	4. 19 4. 18 4. 17 4. 15 4. 14	4. 05 4. 05 4. 04 4. 04 4. 03	3. 95 3. 95 3. 95 3. 94 3. 94	4. 13 4. 12 4. 13 4. 13 4. 13	4. 43 4. 43 4. 43 4. 44 4. 44	4. 62 4. 63 4. 69 4. 70 4. 70	5, 05 5, 05 5, 07 5, 08 5, 08	5. 24 5. 24 5. 26 5. 26 5. 26	4. 98 4. 95 4. 93 4. 90 4. 92	4. 54 4. 54 4. 52 4. 50 4. 49	3, 99 3, 97 3, 95 3, 94 3, 92
11	4. 43 4. 43 4. 40 4. 40 4. 39	4. 12 4. 12 4. 15 4. 16 4. 15	4. 02 4. 01 4. 00 3. 99 3. 98	3. 94 3. 93 3. 93 4. 92 4. 92	4. 15 4. 18 4. 23 4. 30 4. 32	4, 43 4, 43 4, 43 4, 43 4, 43	4.71 4.72 4.73 4.73 4.74	5, 08 5, 09 5, 10 5, 11 5, 11	5. 25 5. 25 5. 24 5. 22 5. 20	4, 91 4, 90 4, 89 4, 89 4, 88	4, 46 4, 43 4, 41 4, 40 4, 40	3. 91 3. 88 3. 86 3. 85 3. 82
16	4.37	4. 12 4. 13 4. 11 4. 10 4. 10	3. 98 3. 97 4. 01 4. 01 4. 01	3. 91 3. 91 3. 93 3. 93 3. 93	4. 36 4. 36 4. 36 4. 36 4. 43	4. 43 4. 44 4. 44 4. 44 4. 44	4. 75 4. 76 4. 77 4. 78 4. 79	5. 12 5. 13 5. 14 5. 16 5. 16	5. 19 5. 18 5. 17 5. 15 5. 13	4. 86 4. 85 4. 83 4. 81 4. 80	4.39 4.36 4.33 4.31 4.31	3. 78 3. 75 3. 74 3. 73 3. 70

Daily gage height, in feet, of Lake Tahoe at Tahoe, Calif., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
21	4. 35	4. 09	4. 01	3, 92	4. 44	4, 44	4. 80	5, 16	5, 11	4.78	4. 29	3, 68
22	4. 34 4. 33	4.08 4.07	4. 01 4. 01	3, 92 3, 92	4. 45 4. 46	4. 44 4. 43	4.81 4.82	5. 17 5. 17	5. 10 5. 10	4.75 4.72	4, 29 4, 28	3. 68 3. 66
24	4, 32	4.07	4. 00.	3. 91	4.46	4.43	4.83	5. 18	5.09	4.73	4. 26	3, 65
25	4. 30	4.07	4.00	3. 90	4. 46	4.43	4.85	5. 18	5.08	4.71	4. 26	3. 61
26 27	4.30 4.29	4.06 4.06	3. 99 3. 99	3. 89 3. 89	4, 44 4, 42	4. 43 4. 43	4.87 4.88	5. 18 5. 20	5. 07 5. 07	4.70 4.68	4. 24 4. 22	3, 61 3, 60
28	4. 29	4.06	3.99	3.88	4. 42	4.43	4.90	5, 20	5.06	4.65	4, 19	3, 58
30	4. 28 4. 27	4.06 4.07	3. 99 3. 98	4. 01 4. 04		4. 43 4. 44	4. 92 4. 95	5. 21 5. 21	5. 05 5. 05	4. 63 4. 64	4. 14 4. 11	3, 53 3, 51
31	4. 27		3. 98	• 4. 05		4. 44		5. 22		4.63	4.09	<u>-</u> ,

#### TRUCKEE RIVER AT TAHOE, CALIF.

LOCATION.—In NW. ¼ sec. 7, T. 15 N., R. 17 E., at Tahoe, Placer County, a short distance below dam at outlet of Lake Tahoe.

Drainage area.—519 square miles.

RECORDS AVAILABLE.—July 3, 1895, to February 29, 1896; June 17, 1900, to September 30, 1926.

GAGE.—Vertical staff fastened to large cottonwood tree on left bank, 300 feet below dam at outlet of Lake Tahoe. Original gage, 100 feet above, was destroyed by dredging operations July 15, 1912.

DISCHARGE MEASUREMENTS.—Made from cable 140 feet below gage or by wading. Channel and control.—Gravel; practically permanent.

EXTREMES OF DISCHARGE.—1895-1896 and 1900-1926; Maximum mean daily discharge, 1,340 second-feet, July 13-20, 1907 (stage, 4.3 feet); no flow during parts of 1900, 1901, 1914, and 1918-1926.

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—No information.

REGULATION.—Flow regulated by operation of gates in dam at Lake Tahoe.

Accuracy.—Stage-discharge relation did not change during year. Rating curve well defined. Gage read to hundredths at least once each day. Daily discharge ascertained by United States Bureau of Reclamation by applying mean daily gage height to rating table.

Cooperation.—Daily-discharge record furnished by United States Bureau of Reclamation.

No discharge measurements were made during the year.

Daily discharge, in second-feet, of Truckee River at Tahoe, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	June	July	Aug.	Sept.
1	148 147 145 138 138	100 97 97 93 93	72 72 72 72 68 68	60 60 59 58 58	50 51 72 72	137 137 102 102 61		354 351 346 340 334	189 187 182 173 178	73 69 70 65 64
6	140 140 133 134 134	90 88 87 84 83	67 66 65 65 63	57 57 57 56 56			104	329 320 315 298 304	171 166 162 157 155	61 60 58 56 53
11	134 134 129 129 127	78 78 84 84 83	62 62 61 61 60	56 54 54 52 52			104 104 154 191 250	301 298 295 293 290	149 143 136 134 132	53 50 49 46 43

Daily discharge, in second-feet, of Truckee River at Tahoe, Calif., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	June	July	Aug.	Sept.
16	125	77	60	51			270	282	128	39
17	123	78	59	51	100		282	277	124	36
18	123	77	62	54	100		280	<b>2</b> 72	121	35
19	121	75	62	54	100		293	267	117	34
20	120	75	62	54	102		293	<b>2</b> 62	115	30
21	120	72	62	52	102		293	<b>2</b> 55	109	29
22	118	71	62	52	102		348	242	106	29
23	114	68	62	52	102		384	230	102	27
24	111	68	61	51	102		381	235	100	26
25	107	68	61	50	102		381	227	97	23
26	107	67	61	49	102	•	378	225	93	23
27	105	67	61	49	137		375	210	90	22
28	105	67	61	48	137		372	205	89	21
29	104	67	61	62	107		363	198	81	15
30	102	68	60	02			360	198	76	15
31	102	ا ۱۰۰۰	60				300	193	75	10
91	102		-00					199	10	

NOTE.—No flow on days for which discharge is not given.

## Monthly discharge of Truckee River at Tahoe, Calif., for the year ending September 30, 1926

Manah	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October	148	102	124	7, 620
November	100	67	79. 4	4,720
December	72 62	59	63. 3 50. 8	3, 890 3, 120
January February	137	/ŏ	54. 8	3, 040
March	137	Ō	17. 4	1,070
June	384	0	199	11, 800
JulyAugust	354 189	193 75	276 130	17, 000 7, 990
September	73	15	42.5	2, 530
The year	384	0	86. 7	62, 800

#### TRUCKEE RIVER AT ICELAND, CALIF.

LOCATION.—In sec. 36, T. 18 N., R. 17 E., above dam of National Ice Co., 400 feet northeast of Southern Pacific Railroad station at Iceland, Nevada County, and 23 miles west of Reno, Nev.

Drainage area.—937 square miles.

RECORDS AVAILABLE.—August 1, 1912, to September 30, 1926.

GAGE.—Water-stage recorder on right bank above dam; auxiliary vertical staff fastened to gage well.

DISCHARGE MEASUREMENTS.—Made from cable 130 feet above gage.

Channel and control.—Bed consists of small boulders; fairly smooth and permanent. Left bank high; right bank subject to overflow at high stages. Dam of National Ice Co. is the control.

EXTREMES OF DISCHARGE.—1907-1926: Maximum mean daily discharge, 15,300 second-feet March 18, 1907; minimum, 40 second-feet January 19 and 20. 1925.

ICE.—Stage-discharge relation somewhat affected by ice.

DIVERSIONS.—No information.

REGULATION.—See "Truckee River at Tahoe."

ACCURACY.—Stage-discharge relation did not change during year. Rating curve well defined. Mean daily gage heights determined from water-stage recorder sheets. Daily discharge ascertained by United States Bureau of Reclamation by applying mean daily gage height to rating table.

Cooperation.—Daily-discharge record furnished by United States Bureau of Reclamation.

No discharge measurements were made during the year.

Daily discharge, in second-feet, of Truckee River at Iceland, Calif., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	246	200	454	162	223	342	648	1, 360	484	400	266	143
2	237	200	454	162	185	349	572	1, 240	462	393	269	128
3	237	206	302	172	203	339	525	1, 220	436	382	260 254	128- 126-
4	234	197	243	159	365	355	577	1, 280	436 425	382 379	249	124
5	240	182	246	165	400	397	1, 120	1, 440	425	3/9	249	124
6	254	162	234	165	382	372	1, 320	1,030	400	375	254	117
7	240	157	223	159	382	355	1, 360	845	382	365	249	112
8	246	170	215	162	362	372	1, 260	769	362	355	243	108
9 10	254	167	209	172	308	379	1,070	708	332	342	240	135
10	266	175	197	175	308	362	899	623	317	349	237	162
11	269	180	200	175	278	332	891	623	335	342	234	143
12	272	195	200	177	275	352	876	608	352	339	229	101
13	257	200	175	180	269	429	1,030	643	365	335	220	99
14	254	195	167	200	257	533	1,080	669	365	326	215	95
15	249	200	175	177	249	608	1, 160	685	418	323	209	93
16	237	197	172	195	234	697	1, 390	697	422	320	206	89
16 17	234	192	185	177	203	726	1, 280	720	425	314	200	89
18	234	182	188	172	275	618	1, 080	762	418	308	200	86
19	229	182	177	180	302	577	998	837	425	302	203	86
20	229	180	162	206	287	623	1, 040	907	425	299	. 200	-86-
									.,,	000	, 1	1.
21	226	175	188	243	287	648	1, 100	823	410	308	200	84 84
22	218	172	177	200	323	659	1, 130	756	440	293	190	84
23	215	177	172	177	272	714	1, 120	702	462	287	188	82
24	212	180	170	175	269	756	1, 160	599	454	278	182	82 82
25	203	182	175	175	266	691	1, 280	<b>529</b> .	<b>44</b> 3	266	180	82
26	203	177	175	175	272	643	1, 320	512	436	260	177	78 78 75
27	200	177	172	188	305	628	1, 360	473	433	281	175	78
28	200	177	167	188	317	599	1, 340	436	425	278	167	75
29	243	175	172	674		581	1,500	454	418	269	162	75
30]	308	229	175	311		554	1, 590	500	410	263	154	75
31	302	1	172	251		623	' '	480		257	148	

Monthly discharge of Truckee River at Iceland, Calif., for the year ending September 30, 1926

"	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	229 454 674 400 756 1, 590 1, 440 484 400 269	200 157 162 159 185 332 525 436 317 257 148	240 185 209 202 288 523 1, 100 772 411 322 212 102	14, 800 11, 000 12, 900 12, 400 16, 000 32, 200 65, 500 47, 500 24, 500 19, 800 13, 000 6, 070
The year	1, 590	75	381	276, 000

#### ABERT LAKE BASIN

#### CHEWAUCAN RIVER ABOVE CONN DITCH NEAR PAISLEY, OREG.

LOCATION.—In SW. ¼ sec. 27, T. 33 S., R. 18 E., 200 feet below power plant of R. R. Severin, 500 feet above diversion dam of Conn ditch, one-fourth mile below mouth of Mill Creek, and 2½ miles above Paisley, Lake County.

Drainage area.—266 square miles (measured on map of Fremont National Forest).

RECORDS AVAILABLE.—April 3 to September 30, 1912; May 1, 1924, to September 30, 1926. Records at stations giving practically same yearly run-off are available January 4, 1905, to December 31, 1907, and January 18, 1909, to April 15, 1912.

Gage.—Stevens 8-day water-stage recorder on left bank; inspected by R. R. Severin.

DISCHARGE MEASUREMENTS.—Made from footbridge at power plant or by wading. Channel and control.—Control of rock and boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 1.78 feet at 9.30 p. m. February 4 (discharge, 584 second-feet); minimum, 0.19 foot at 6 p. m. August 7 (discharge, 6 second-feet).

1924-1926: Maximum stage recorded, 2.40 feet at midnight February 4, and 6 to 7 a. m. May 21, 1925 (discharge, 960 second-feet); minimum, 0.17 foot at 4 p. m. July 29, 1924 (discharge, 4.2 second-feet).

ICE.—Stage-discharge relation not seriously affected by ice.

Diversions.—About 160 acres shown as irrigated above station on surveys made by State engineer.

REGULATION.—Slight fluctuations caused by power plant above; no appreciable pondage.

Accuracy.—Stage-discharge relation fairly permanent; affected by ice December 31 to January 5, 8-11, 13, 14, 16, 21-22, and 24-30. Rating curve fairly well defined below 500 second-feet. Operation of water-stage recorder satisfactory except for a few short periods. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records good except for flat estimates of discharge, which are fair.

COOPERATION.—Record furnished by State engineer of Oregon.

Discharge measurements of Chewaucan River above Conn ditch near Paisley, Oreg., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Nov. 29 Jan. 16	Feet 0. 45 . 46	Secft. 37. 4 39	May 17	Feet 0. 58 . 20	Secft. 54 5.9

Daily discharge, in second-feet, of Chewaucan River above Conn ditch near Paisley; Oreg., for the year ending September 30, 1926

Day	Oct:	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
									<b></b>			
1	30	25	56	31	36	56	1)	110	36	17	12	20
2 3	28 28 28	30 27	162 53	31 31	37 36	56 57	115	105 102	34 34	17 17	12 12	. 19 . 19
4	20	20	56	31	118	59		102	) 34	17	12	17
5	28	28 28	51	34	130	-59	149	108	H :_	1 17	12	17 17
			-	٧.	-200	- 40			32			
6	48	38	43	36	127	- 56	146	102	l)	l	12	17
7	43	42	40	36	102	56	127	105	30	1	12	16
8	37	42	43	36	83	65	149	100	28	18	1)	16
9	36	34	38	37	59	54	130	92	26 25		11	16 16
10	36	36.	38	38	54	48	130	78	25		H	16
11	36	36	45	40	. 51	54	133	74	26	J	12	16
11 12	37	37	43	40	46	56	143	67	26	19		16
13	34	32	31	40	37	65	1	65	25	22		17
13 14	32	26	31	38	38	78	156	h -	24	19	.	16.
15	32	32	40	38	46	65 78 92		60	22	15	j)	17 16 17
••			!					l	1	_		
16 17	31	36	40	38	37	102	170	,	22	15	13	17 18 17 17
17	31	42	43	36	32	90	162	56	22	12 10	12 13	18
10	31	38 30	38 36	34 34	38 43	76	152 143	56 54	24 24	12	17	17
18 19 20	30 28	31	36	30	36	68 72	133	54 54	22	9	16	17
40	- 40	91	90	30	30	12	130	02	22	9	10	1 1
21	28	30	38	30	37	68	127	51	24	9.	14	17
22	28 28	34	38	29	40	78	121	49	25 22	10	13	17
23	27	43	42	31	38	90	116	48	22	12	12	17 17 17 17 16
24	26	43	42	31	43	92	116	46	22	12	12	17
25	26	43	37	31	48	88	113	46	21	12	12	16
26	0=	40		140		70	110	4.5	- 00	10	in	10
27	27	40 37	38 36	31 32	53 54	76	113 113	45 46	20 18	12 12	12	16
28	26 26	34	36	32 32	56	78 83	113	45	17	12	12	21 20 20 21
29	26 26	37	20	34	90	78	1.0	42	17	12	15	20
30	25	42	31	34		78	117	40	17	12	17	21
31	24	1 42	31	32		78	111	38	1 11	12	20	21
			J 31	52		۱ '				12		

North. Water-stage recorder not operating satisfactorily March 30, 31, June 27, Aug. 22, 29, and during periods included in brackets; discharge estimated by interpolation.

#### Monthly discharge of Chewaucan River above Conn ditch near Paisley, Oreg., for the year ending September 30, 1926

•		Discha	Run-off in		
Har Office	Month	Maximum	Minimum	Mean	acre-feet
October		48	24	30. 7	1,890
November		43	25	35. 1	2,090
			20 29	43. 6 34. 1	2, 680 2, 100
Rehrijery		130	32	55. 5	3, 080
		102	48	71. 2	4, 380
		170	110	132	7,860
Мау		110	38	67. 9	4, 180
		36	17	25. 0	1, 490
		22	9	14.6	898
		20	12	13.0	799
September		21	16	17. 4	1,040
The year		170	. 9	44.8	32, 500

#### SILVER LAKE BASIN

#### SILVER CREEK NEAR SILVER LAKE, OREG.

LOCATION.—In SW. ¼ sec. 28, T. 28 S., R. 14 E., 1½ miles below diversion dam of Silver Lake Irrigation District, 1½ miles southwest of Silver Lake post office, Lake County, and 3 miles above mouth of Bridge Creek. During part of each year record is obtained in spillway flume at diversion dam or at weir below outlet tunnel of dam, in NE. ¼ sec. 5, T. 29 S., R. 14 E.

Drainage area.—221 square miles.

RECORDS AVAILABLE.—December 29, 1904, to March 31, 1907; January 11, 1909, to September 30, 1926.

GAGES.—River gage: Inclined staff on right bank 1½ miles below diversion dam.

Spillway-flume gage: Vertical staff on right side just above weir at lower end of rectangular flume 100 feet long from intake to chute to river.

Outlet tunnel gage: Vertical staff at 7-foot Cippoletti weir just below outlet tunnel in dam; used to measure small quantities of water released through dam. No water released through outlet tunnel of dam when water is passing through spillway flume.

DISCHARGE MEASUREMENTS.—Referred to river gage, made from cable at gage or by wading; to spillway-flume gage, from plank 20 feet upstream. Discharge through outlet tunnel computed from weir formula for 7-foot Cippoletti weir.

CHANNEL AND CONTROL.—At river gage, composed of rocks and gravel; fairly permanent. Spillway flume, built of lumber, is 6.7 feet wide; weir below gage is solid and practically permanent; channel straight 20 feet above and below gage. Control for gage below outlet tunnel in dam is a 7-foot Cippoletti weir.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 47 second-feet at time of discharge measurement May 28 (gage height on spillway-flume gage, 1.40 feet); minimum, 0.3 second-feet August 28, September 4, 11, and 18.

1905-1907, 1909-1926: Maximum stage recorded, 6.40 feet on river gage November 23, 1909 (discharge, 910 second-feet); minimum discharge, 0.3 second-foot August 30, September 2 and 6, 1919, and August 28, September 4, 11, and 18, 1926.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Silver Lake Irrigation District Canal diverts water past gages during the irrigation season.

REGULATION.—The diversion dam above gage impounds about 800 acre-feet; during 1925 it was filled, and it has not since been emptied. Water was stored in Thompson Valley Reservoir for Silver Lake Irrigation District for the first time in 1923.

Observed stage and contents of Thompson Valley Reservoir during year ending September 30, 1926

. Date	Gage height	Contents	Date	Gage height	Contents
Feb. 6	Feet. 5, 072. 0 5, 072. 5 5, 072. 6 5. 072. 8 5, 072. 8	Acre-feet 2, 783 3, 074 3, 134 3, 257 3, 257	Apr. 30. May 8. May 30. June 8. June 30.	Feet 5, 070. 5 5, 070. 0 5, 064. 0 5, 062. 0 5, 060. 0	Aero-fest 2,015 1,798 380 177 86

ACCURACY.—Stage-discharge relation permanent for river gage and spillwayflume gage. Rating curve for river gage fairly well defined. Rating curve
for spillway-flume gage fairly well defined. Staff gages read to hundredths
once a day during part of April and less often at other times. Daily discharge ascertained by applying daily gage reading to rating table for days
read, or estimated by interpolation when gage was read only once each week.
Records good except those for periods covered by flat estimates of discharge,
which are fair.

COOPERATION.—Record furnished by State engineer of Oregon.

The following discharge measurement, referred to spillway-flume gage, was made:

May 28, 1926: Gage height, 1.39 feet; discharge, 46.8 second-feet.

Daily discharge, in second-feet, of Silver Creek near Silver Lake, Oreg., for the year ending September 30, 1926

Day	Oct.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.
1	5 5 5	2	3	7 8 10	10	}	0.7	0.6	0.3 .3 .3 .3
6		2	3	10 12 12 12	10	10	.7	} .6 ]	.3
10		3		12 13 14	9	10 10 10	.6 }	.5	.3
12 13 14 15		3	3	14 14 14 15		10	.6	.4 ]	.3
16	4		3 3	15 15	8	8	.6 .6 .6 .6	.4	.3
21		3:	4	7 7 12 12	) 0	7 .:	.6 .6 .6 .5	.4	.4
26			5 5 5 5 5	11 11 11 11 11	10 8 7 7	2 2	.5	.3 .3 .3 .3	.4

Note.—Braced figures show mean discharge for periods indicated; discharge estimated by interpolation.

Monthly discharge of Silver Creek near Silver Lake, Oreg., for the year ending September 30, 1926

	Discha	rge in second	l-feet	Run-off in
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September The year	3 5 15 10 10	2 3 7 7 7 2 .5 .3 .3	4.1 4.3 2.2 2.8 3.5 11.7 9.0 6.6 .58 .45 .34	252 179 123 123 156 215 696 553 393 36 28 20

Estimated.

#### WEST FORK OF SILVER CREEK NEAR SILVER LAKE, OREG.

LOCATION.—In NW. ¼ sec. 8, T. 29 S., R. 14 E., 1 mile above mouth of West Fork and 7 miles by road southwest of Silver Lake post office, Lake County. Drainage area.—Not measured.

RECORDS AVAILABLE.—Irrigation seasons 1919 to 1923, and March 11, 1925, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank, half a mile above location used 1919 to 1921; inspected by G. W. Marvin.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Stream bed gravel and small boulders. Banks clean but of friable soil and may shift by undercutting.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 0.62 foot April 17 (discharge, 11 second-feet); minimum discharge, 0.5 second-foot, estimated as monthly mean discharge during August and September.

1919-1923, 1925-1926: Maximum discharge, 138 second-feet April 11, 1921 (gage height on old gage, 2.24 feet); stream bed nearly dry at times of extremely cold weather.

Ice.—Stage-discharge relation not affected by ice.

DIVERSIONS.—None.

REGULATION.—None.

Accuracy.—Stage-discharge relation permanent. Rating curve fairly well defined. Water-stage recorder operated October 1 to December 15 and March 8 to June 28; staff gage read February 13, 20, 27, and March 6. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph, except as stated in footnote to table of daily discharge. Records good except for periods of no gage-height records, for which they are fair.

COOPERATION.—Record furnished by State engineer of Oregon.

Discharge measurements of West Fork of Silver Creek near Silver Lake, Oreg., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Oct. 5 Mar. 8	Feet 0. 26 . 33	Secft. 2. 1 2. 4	May 29 July 21	Feet 0. 28 . 06	Secft. 2. 3 . 75

Daily discharge, in second-feet, of West Fork of Silver Creek near Silver Lake, Oreg., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	Мау	June
1	2 2 2 2 2 2	2 2 4 3 2	2 3 3 3 3		2	5 5 5 5	4 4 4 4	2 2 2 2 2 2
6	2 2 1 2 2	2 2 2 2 2	2 3 4 3 2	3	2 2 3 4 3	5 5 6 6 8	4 4 4 3	2
11 12 13 14 15	2 2 2 2 2	2 2 3 2 2	3 4 4 3	2	3 3 4 5	9 9 9 9	3 3 3 3	) 1 1 1
16	2 2 2 2 2 2	2 1 2 2 1		2 2	6 5 4 4 4	10 10 9 8 8	3 3 3 3	1 1 1 1
21	2 2 2 2 2 2	2 4 3 2 2	2	2	4 4 5 5 5	7 7 6 6 6	3 3 3 2	.8 .8 .8
26	2 2 2 2 2 2 2	2 2 2 2 2 2		2 2	4 4 4 4 5	6 5 5 5 5	2 2 2 2 2 2 2	.8 .8 .8 .8

Note.—No gage-height record Dec. 16 to Feb. 12, 14-19, 21-26, 28, Mar. 1-5, 7, Apr. 16, June 6-11, 28-30. Discharge estimated by interpolation except Dec. 16 to Feb. 12, when mean discharge was estimated by comparison with record of flow of Silver Creek near Silver Lake. Braced figures show mean discharge for periods indicated.

Monthly discharge of West Fork of Silver Creek near Silver Lake, Oreg., for the year ending September 30, 1926

) No. and	Discha	i-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet
October November December January February March April May June July August September	6 10 4 2	1 1 2 5 2 5 2 .8	2.0 2.2 2.5 41.0 2.4 3.6 6.8 3.1 1.31 • .8	123 131 154 61 133 221 405 191 78 49 31
The year			2. 21	1, 610

a Estimated.

#### SILVER LAKE IRRIGATION DISTRICT CANAL NEAR SILVER LAKE, OREG.

LOCATION.—In NE. ¼ sec. 5, T. 29 S., R. 14 E., at diversion dam of Silver Lake Irrigation District, 2½ miles southwest of Silver Lake post office, Lake County.

RECORDS AVAILABLE.—March 30, 1923, to September 30, 1926.

GAGE.—Vertical staff on right side of timber flume 80 feet below head gate.

DISCHARGE MEASUREMENTS.—Made from plank across flume 30 feet upstream, just above a fish wheel.

Channel and control.—Rectangular timber flume 6.7 feet wide; channel control.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 40 second-feet, at time of making discharge measurement May 29 (gage height, 2.00 feet); canal dry frequently.

Accuracy.—Stage-discharge relation changed during winter. Rating curve fairly well defined by 12 discharge measurements made during 1926 and 1927. Staff gage read to hundredths only at time change was made at head gate on May 6, 11, 19, 20, 24, 28, 29, 30, and June 9. Daily discharge ascertained by applying gage reading to rating table and by estimating flow as uniform during periods gage was not read and no change was made at head gate. Records fair.

Cooperation.—Record furnished by State engineer of Oregon.

The following discharge measurements were made:

May 28, 1926: Gage height, 1.50 feet; discharge, 23.2 second-feet. May 29, 1926: Gage height, 2.00 feet; discharge, 39.6 second-feet.

Daily discharge, in second-feet, of Silver Lake Irrigation District Canal near Silver Lake, Oreg., for the year ending September 30, 1926

Day	Мау	June	Day	Мау	June	Day	May	June
1	5 20 20 20 20 20	22 22 22 22 22 22 22 22 22 22 8	11	23 23 23 23 23 23 23 23 24 26 29		21	29 29 29 26 26 26 26 26 23 24 22 22	

Note.-No flow on days for which no discharge is given.

## Monthly discharge of Silver Lake Irrigation District Canal near Silver Lake, Oreg., for the year ending September 30, 1926

No. with	Discha	Run-off in		
Month	Maximum	Minimum	Mean	acre-feet
MayJune	29 22	0	19. 6 6. 13	1, 210 365
The year				1, 580

Note.-Water turned into canal May 6 and turned out June 9.

#### MALHEUR AND HARNEY LAKES BASIN

#### SILVIES RIVER NEAR BURNS, OREG.

LOCATION.—In or near SE. ½ sec. 25, T. 21 S., R. 29 E., 1 mile below dam site for proposed lower Silvies Reservoir and 15 miles northwest of Burns, Harney County.

Drainage area.—940 square miles (measured on map prepared by United States Bureau of Reclamation).

RECORDS AVAILABLE.—May 10, 1903, to July 24, 1906; December 14, 1908, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank, used since April 17, 1922. Staff gage in sec. 7, T. 22 S., R. 10 E., at Parker ranch, used during winter.

DISCHARGE MEASUREMENTS.—Made from cable 1½ miles below recorder, by wading near gage, or from bridge at Parker ranch.

Channel and control.—Low-water control is gravel riffle 200 feet below gage; fairly permanent. In times of flood river overflows its banks near both gages.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 8.45 feet at 10 a. m. February 8 (discharge, 678 second-feet; stage-discharge relation affected by ice); minimum, 0.87 foot at 7 p. m. August 29 (discharge, 1 second-foot).

1903-1906, 1909-1926: Maximum stage recorded, 17.12 feet on original datum April 15, 1904 (discharge, 4,730 second-feet); minimum discharge, 0.6 second-foot September 2, 1924.

ICE.—Stage-discharge relation at both gages affected by ice.

DIVERSIONS.—Large area on headwaters of Silvies River is irrigated with flood water.

REGULATION.—None at recorder; flow at lower station occasionally affected by operation of Sylvester Dam, half a mile above.

Accuracy.—Stage-discharge relation affected by ice on control January 2 to February 8 and by drift June 9 to September 30. Rating curves well defined. Staff gage at Parker ranch read to hundredths January 2-31 and February 27 to March 4. Water-stage recorder operated satisfactorily before and after these periods except September 23-30. Daily discharge ascertained by applying mean daily gage height obtained by inspecting recorder graph or daily gage reading to rating table, except January 2 to February 8, when mean discharge was estimated from gage-height record, weather records, and discharge measurement, and June 9 to September 30, when shifting-control method was used. Records fair.

COOPERATION.—Record furnished by State engineer of Oregon.

Discharge measurements of Silvies River near Burns, Oreg., during the year ending September 30, 1926

Date	Gage height	Dis- charge	Date	Gage height	Dis- charge	Date	Gage height	Dis- charge
Feb. 1	Feet 1. 90 4. 65 4 2. 29	Secft. 30 30 157	Apr. 13 Do May 13	Feet 4.85 4.44 3.58	Secft. 300 337 28	June 28	Feet 1. 02	Secft. 3. 9

<sup>•</sup> Referred to gage and discharge measurement made at Parker ranch.

Daily discharge, in second-feet, of Silvies River near Burns, Oreg., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15 16 16 16 17	25 26 26 26 26 26	36 37 39 40 40	36	31 35 36 49 335	247 255 239 247 190	218 214 209 214 236	62 62 63 64 64	24 22 20 19 18	2 2 2 2 2 2	2 2 1 1 2	4 4 4 4 4
6	17 19 22 24 24	27 30 31 31 31	40 39 44 42 41		295 508 638 508 376	137 137 137 142 146	245 236 275 305 315	63 78 78 77 77	18 16 15 14 12	1 2 2 6 5	2 2 2 1 1	4 4 4 4 4
11	24 24 24 24 24 24	31 31 31 31 31	38 37 38 44 41		275 275 245 204 182	146 137 142 182 255	305 315 295 295 275	68 67 59 57 54	11 11 10 10	5 3 3 3	1 1 1 1	4 4 4 4 4
16	24 24 24 24 24 25	31 31 32 32 32 32	38 38 37 37 37	30	155 128 112 108 96	335 376 376 325 295	265 245 227 227 218	50 48 45 45 41	8 8 8 8	3 2 2 1 1	1 1 2 2 2 3	5 5 5 5 5
21	25 25 25 25 25 25	34 34 34 34 34 34	37 37 37 37 38		96 89 90 88 92	275 255 265 275 265	204 191 168 142 128	36 35 29 26 25	8 8 7 7 6	1 2 3 3 3 3	3 2 2 2 2 1	6
26	25 25 25 25 25 25 25 25	34 34 34 35 35	38 38 38 38 37 37		173 183 231	265 245 227 209 ,204 209	112 96 92 76 65	25 25 25 25 25 28 28	6 5 4 3 3	3 3 3 2 2	1 1 1 1 1 3	6

## Monthly discharge of Silvies River near Burns, Oreg., for the year ending September 30, 1926

260	Discha	rge in second	l-feet	Run-off in	
Month	Maximum	Minimum	Mean	acre-feet	
October	35 44 36 638 376 315 78 24 6	15 25 36 88 137 65 25 3 1 1	22. 6 31. 1 38. 6 30. 2 203 230 214 49. 3 10. 9 2. 6 1. 5 4. 8	1, 38 1, 85 2, 87 1, 88 11, 30 14, 10 12, 70 3, 03 64 16 9: 28	
The year	638	1	68. 9	49, 80	

<sup>«</sup> Estimated.

#### ALVORD LAKE BASIN

#### TROUT CREEK NEAR DENIO, OREG.

LOCATION.—In SW. ¼ sec. 26, T. 39 S., R. 36 E., 800 feet above bridge at mouth of canyon, 5 miles east of Trout Creek ranch, and 14 miles northeast of Denio, Harney County.

Drainage area.—Not measured.

RECORDS AVAILABLE.—March 25, 1911, to March 31, 1912; April 15, 1922, to November 4, 1923; April 3 to July 3, 1925; and April 30 to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by Frank Henry.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

CHANNEL AND CONTROL.—Control of fairly large gravel and boulders, shifting at high stages. Banks fairly high, covered with willows.

EXTREMES OF DISCHARGE.—Maximum stage during period April 30 to September 30, from water-stage recorder, 2.56 feet at 6 a. m. May 5 (discharge, 85 second-feet); minimum, 0.71 foot at 8 p. m. August 27 (discharge, 0.5 second-foot.)

1911-12, 1922-23, 1925-26: Maximum stage, from water-stage recorder, 3.07 feet May 19, 1922 (discharge, 149 second-feet); minimum discharge recorded, 0.3 second-foot July 18, 1922 (gage height, 0.72 foot).

DIVERSIONS.—A little water diverted for irrigating small ranch fields above station. Large area irrigated below mouth of canyon.

REGULATION .- None.

Accuracy.—Stage-discharge relation permanent. Rating curve fairly well defined by six discharge measurements made in 1922, 1923, 1925, and 1927. Operation of water-stage recorder satisfactory April 30 to September 30. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records fair.

Cooperation.—Record furnished by State engineer of Oregon.

No discharge measurements were made during the year.

Daily discharge, in second-feet, of Trout Creek near Denio, Oreg., for the year ending September 30, 1926

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug:	Sept.
1 2 3		60 56 54	14 12 11	2 2 2	1 1	3 5 5	16 17 18		29 30 28 27	3 2 2 2	1 1 1	1 1 1	3 3
5		57 68	11 10	1	1	4	20		26 26	2	1	2	2
6 7		51 45 41 36 32	9 8 7 6 6	1 1 1 1	1 1 1 1	4 4 3 3 2	21 22 23 24 25		23 21 18 17 17	2 3 3 3	1 1 1 1	2 2 1 1 1	2 2 2 2 2 2
11 12 13 14 15		30 29 29 30 28	5 4 3 3	1 1 1 1	1 1 1 1	2 2 2 2 2 2	26 27 28 29 30 31	64	16 15 15 15 16 16	3 2 2 2 2 2	1 1 1 1 1	1 1 1 1 1	2 2 2 2 2 2
	1	ı		ī	1	, ,	1	l .	1	1 .			i

Monthly discharge of Trout Creek near Denio, Oreg., for the year ending September 30, 1926

25.4	Discha	Run-off in		
Month	Maximum	Minimum .	Mean	acre-feet
May	68 14 2 2 2 5	15 2 1 1 2	31. 4 5. 0 1. 1 1. 1 2. 7	1, 930 298 68 68 161
The period				2, 520

### MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the Great Basin at points other than regular gaging stations, made during the year ending September 30, 1926, are listed in the following table:

Miscellaneous discharge measurements in the Great Basin during the year ending September 30, 1926

#### Bear River Basin

Date	Stream	Tributary to or diverting from—	Locality	Gage height	Dis- charge	
Sept. 30	Bear Lake outlet canal.	Bear Lake	Sec. 6, T. 13 S., R. 44 E., 1,000 feet below Montpeller-Ovid road, 3 miles west of Montpeller,	· Feet	Secft. 430	
Oct. 1	West Cache Canal	Bear River	Idaho.	9. 63	70. 1	
June 17	Tule Lakes outlet	Soda Creek	miles east of weston, Idano. S. ½ sec. 27 and N. ½ sec. 34, T. 7 S., R. 42 E., at J. Staat ranch, 11 miles northeast of		12.8	
17	Formation Springs	·	Soda Springs, Idaho. SE. ½ sec. 28, T. 8 S., R. 42 E., at Russell Panning Ranch, 5½ miles northeast of Soda Springs,		25. 1	
<b>M</b> ay 19	South Fork of Little Bear River.	Little Bear River	mile above confluence with East Fork and 1½ miles south		114 .	
. 19	East Fork of Little Bear River.	do	of Avon, Utah. SE. 14 sec. 11, T. 9 N., R. 1 E., above diversion of Paradise Canal, 1 mile above confluence with South Fork, and three- fourths mile east of Avon,		56.4	
Sept. 7	Logan, Hyde Park & Smithfield Canal.	Logan River	Utah. NW. ½ NE. ½ sec. 31, T. 12 N., R. 2 E., at former gaging station, 1 mile below head of canal and 3½ miles east of Logan, Utah.	1. 05	30, 8	
Weber River Basin						
June 8	North Fork of Ogden River.	Ogden River	SE. ¼ sec. 10, T. 6 N., R. 1 E., at highway bridge 1,500 feet above confluence with Middle Fork and 2½ miles northwest		5.9	
22	do	do	of Huntsville, Utah.	0.75	8. 1	
Aug. 9	dodo	do	do	.71	5.7	
Oct. 23	do	d <b>o</b>	do SE. ¼ SE.¼ sec. 10, T. 5 N., R. 1 E., 500 feet above confluence with Middle Fork, 1,000 feet below highway bridge, and 2½ miles northwest of Huntsville,	.74	8. 2	
Mar. 7 24	do	do	Utah. dodo	. 82 1. 68	15.3 124	
Jordan River Basin						
July 1	American Fork Creek.	Utah Lake	NE. ¼ sec. 26, T. 4 S., R. 2 E., at Utah Power & Light Co.'s gaging station 1,000 feet above intake at upper plant and 10 miles east of American Forks,	3.64	66.8	
9	Utah Power & Light Co.'s tailrace.	Cottonwood Creek	Utah. NE. 4/ sec. 25, T. 2 S., R. 1 E., at Utah Power & Light Co.'s gaging station at lower power plant, 12 miles southeast of Sait Lake City, Utah.	1.32	58. 4	

# Miscellaneous discharge measurements in the Great Basin during the year ending September 30, 1926—Continued

#### Sevier Lake Basin

			Sevier Lak	te Dasin		
Dat	te	Stream	Tributary to or diverting from—	Locality	Gage height	Dis- charge
Sept.	1	Duck Creek		Sec. 12, T. 38 S., R. 8 W., just below Duck Creek Springs, 22 miles southwest of Hatch,	Feet	Secft. 16. (
Мау	3	Clear Creek	Sevier River	Utah. SE. 14 sec. 32, T. 25 S., R. 4 W., at former gaging station, 100 yards above confluence with Sevier River, at Sevier, Utah.	2.06	107
			Stream in Pa	vant Valley		
May 8 Chalk Creek			Sec. 20, T. 21 S., R. 4 W., at flour mill 1/4 mile east of Fillmore, Utah.	1.01	71.4	
			Escalante De	sert Basin		
June	12	Center Creek	Little Salt Lake	SE. 14 sec. 36, T. 34 S., R. 9 W., 50 feet above mouth of East Fork and power canal intake 3 miles south of Parawan, Utah.		21, 1
	12	East Fork of Center Creek.	Center Creek	SE. ¼ sec. 36, T. 34 S., R. 9 W., 200 feet above confluence with Center Creek and power canal intake and 3 miles south of Parawan. Utah.		3. 6
	13	Coal Creek		SE. 14 sec. 17, T. 36 S., R. 10 W., 31/2 miles east of Cedar City, Utah.		43, 3
Dec.	12	Pinto Creek		E. ½ sec. 21, T. 36 S., R. 15 W., at old Newcastle Reclamation Co.'s heading 1¼ miles south- east of Newcastle, Utah.		4.3
			Antelope Val	lley Basin	·	
Oct.	7	,	Antelope Valley drainage basin.	Creek, near Valyermo, Calif.		2.0
Dec.	28 3	do	do	do		1, 9 2, 1
Jan.	9	do	do	do		2, 1
Feb. Mar.	22 23	do	do	do		5 <b>4. 2</b>
	31	do	do	do		1.5
Apr.	16	do	do	do		44
Мау	22 ' 1	do	do	do		56 <b>6</b> 3
	12	do	do	do		46
Apr.	25 16	Punch Bowl Creek	Rock Creek	At mouth, one-eighth mile below gaging station on Rock Creek near Valyermo, Calif.		1. 3 6. 2
			Mohave Riv	ver Basin		
Мау		Deep Creek	Mohave River	Half a mile above mouth, near Hesperia, Calif.	1.82	38
	20 20	Appleton Land & Water Co.'s canal.	Diverts from Deep Creek.	Intake near Hesperia, Calif Three-fourths mile below intake,		7. 0 6. 4
				near Hesperia, Calif.		
	10	Book Chart	Humboldt-Carso		1 70 1	
Mar.	TA	Rock Creek	Humboldt River	NE. ½ sec. 17, T. 34 N., R. 48 E., at regular gaging station, at mouth of canyon, ½ mile above old highway bridge and 25 miles northeast of Battle Mountain, Nev.	1.76	55. 7



### INDEX

A Page	Page
Abert Lake Basin, Oreg., gaging-station	Chewaucan River above Conn ditch, near
record in 130-131	Paisley, Oreg 130-131
Accuracy of data and results, degrees of 4-5	Circleville, Utah, Sevier River near 54-55
Acre-foot, definition of2	Clear Creek, Utah, discharge measurement
Adamsville, Utah, Beaver River at 72-74	of
Alexander, Idaho, Bear River at 14-16	Coal Creek, Utah, discharge measurement of. 141
Alvord Lake Basin, Oreg., gaging-station	Coleville, Calif., West Walker River near 103-104
record in 138-139	Collinston, Utah, Bear River near 17-19
American Fork Creek, Utah, discharge	Hammond Canal near 30-31
measurement of 140	West Side Canal near 28-30
Antelope Valley Basin, Calif., gaging-station	Computations, results of, accuracy of 4-5
record in 97-98	Comus, Nev., Humboldt River at 114-115
Appleton Land & Water Co.'s canal, Calif.,	Control, definition of2
discharge measurements of 141	Cooperation record of
Appropriations, record of 1	Cottonwood Creek near Paradise Valley,
	Nev 122-123
В	
	D
Bear Lake outlet canal, Idaho, discharge	
measurement of 140	Data, accuracy of 4-5
Bear River at Alexander, Idaho 14-16	explanation of 2-4
at Harer, Idaho	Deep Creek, Calif., discharge measurement
near Collinston, Utah 17-19	of 141
near Evanston, Wyo 11-13	Deeth, Nev., Marys River near 116-118
near Weston, Idaho 16-17	Denio, Oreg., Trout Creek near 138-139
Bear River Basin, Utah-Idaho-Wyo., gaging-	Devils Slide, Utah, Lost Creek at 38-39
station records in 11-31	Weber River at 33-34
Beaver River at Adamsville, Utah 72-74	Duck Creek, Utah, discharge measurement
at Rockyford Dam, near Minersville,	of 141
Utah	_
near Beaver, Utah71-72	E
Beaver River Basin, Utah, gaging-station	East Side Canal, Utah. See Hammond
records in 71-75	Canal.
Big Pihe, Calif., Owens River near 87-88	East Walker River near Bridgeport, Calif. 99-100
Bishop, Calif., Owens River near 80-86	Elko, Nev., South Fork of Humboldt River
Pine Creek near 92-96	near118-119
Rock Creek near 88–92	Evanston, Wyo., Bear River near11-13
Blacksmith Fork above Utah Power & Light	Evansion, wyor, Dear Intel Real
Co.'s dam near Hyrum, Utah 27-28	F
Bridgeport, Calif., East Walker River near. 99-100	~
Burns, Oreg., Silvies River near 137–138	Falls Creek near Whitewater, Calif 78-79
_	Forks, Utah, Provo River at 48-50
C	South Fork of Provo River at 50-52
Carson River, East Fork of, near Gardner-	Formation Springs, Idaho, discharge meas-
ville, Nev 107-108	urement of140
near Markleeville, Calif 106–107	Fort Churchill, Nev., Carson River near 109-110
near Fort Churchill, Nev 109-110	
Carson River Basin, Calif., Nev., gaging-	<b>G</b>
	Gardnerville, Nev., East Fork of Carson
station records in 166-112 Center Creek, Utah, discharge measurement	River near 107-108
of141	Gateway, Utah, Weber River at
East Fork of, Utah, discharge measure-	Great Salt Lake, Utah, gages on
· , , , , , , , , , , , , , , , , , , ,	Great Salt Lake, Utah, gages on
ment of141 Chalk Creek, Utah, discharge measurement	Wyo., gaging-station records in 11-52
of141	Gunnison, Utah, Sevier River near
Vi 171	Gunnous Con, Device INVOLUDAL 02-00

 $\mathbf{M}$ 

H

H	$\mathbf{M}$
Page	Page
Hammond Canal near Collinston, Utah 30-31	Malheur and Harney Lakes Basin, Oreg.,
Harer, Idaho, Bear River at 13-14	gaging-station record in 137-138
Harney and Malheur Lakes Basin, Oreg.,	Markleeville, Calif., East Fork of Carson
gaging-station record in 137-138	River near 106-107
Hatch, Utah, Sevier River at 52-53	Markleeville Creek above Markleeville,
Humboldt, Nev., Humboldt-Lovelock Irri-	Calif110-111
gation, Light & Power Co.'s out-	at Markleeville, Calif
let canal near 125-126	Martin Creek near Paradise Valley, Nev. 121-122
Humboldt-Carson Sink Basin, CalifNev.,	Marys River near Deeth, Nev 116-118
gaging-station records in 106-126	Marysvale, Utah, Piute Reservoir near 57
Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near	Sevier River near 57-59
Mill City, Nev 124	Mill City, Nev., Humboldt-Lovelock Irriga-
Humboldt-Lovelock Irrigation, Light &	tion, Light & Power Co.'s feeder canal near 124
Power Co.'s outlet canal near	Minersville, Utah, Beaver River near 74-75
Humboldt, Nev 125-126	Mono Lake near Mono Lake, Calif 98
Humboldt River at Comus, Nev	With Dake near with Dake, Cam 98
at Palisade, Nev 112-113	37
near Lovelock, Nev	N
near Oreana, Nev 115-116	Nephi, Utah, Sait Creek near 47-48
South Fork of, near Elko, Nev 118-119	Trophi, com, barr cross hoursessess at
Humboldt River Basin, Nev., gaging-station	. 0
records in112-126	•
Huntsville, Utah, Middle Fork of Ogden	Oakley, Utah, Weber River near 31-33
River near 43-45	Oasis, Utah, Sevier River at 66-67
South Fork of Ogden River near 39-43	Ogden River, Middle Fork of, near Hunts-
Hyrum, Utah, Blacksmith Fork near 27-28	ville, Utah 43-45
I	North Fork of, Utah, discharge measure-
	ments of 140
Iceland, Calif., Truckee River at 128-129	South Fork of, at Artesian Park, near
1	Huntsville, Utah 41-43
Tonday Division T. 1.1 Tit. 1.	near Huntsville, Utah 39-41
Jordan River near Lehi, Utah	Oreana, Nev., Humboldt River near 115-116
Jordan River Basin, Utah, gaging-station rec- ords in 45-52	Owens Lake Basin, Calif., gaging-station records in
Juab, Utah, Sevier Bridge Reservoir near 64	Owens River at Pleasant Valley, near Bishop,
Sevier River near 64-66	Calif80-86
	near Big Pine, Calif
K	non Dig 1 mo, Cumiling
Kingston, Utah, East Fork of Sevier River	P
near67-69	_
Sevier River near 55-57	Paisley, Oreg., Chewaucan River near 130-131
L	Palisade, Nev., Humboldt River at 112-113
и	Paradise Valley, Nev., Cottonwood Creek
Lake Tahoe at Tahoe, Calif	near122-123
Lehi, Utah, Jordan River near 45-47	Little Humboldt River near 119-121
Little Bear River, East Fork of, Utah, dis-	Martin Creek near 121-122
charge measurements of 140	Pine Creek at division box near Bishop,
South Fork of, Utah, discharge measure-	Calif 92-96
ment of 140	Pinto Creek, Utah, discharge measurement
Little Humboldt River near Paradise Valley,	of 141 Piute Reservoir near Marysvale, Utah 57
Nev119-121	
Logan, Utah, Logan, Hyde Park & Smith-	Plain City, Utah, Weber River near 36-38 Provo River at Forks, Utah
field Canal near 26-27	South Fork of, at Forks, Utah 50-52
Logan River near22-24 Utah Power & Light Co.'s tailrace near 24-25	Publications, information concerning 5-9
Logan, Hyde Park & Smithfield Canal, Utah,	obtaining or consulting of 6-7
discharge measurement of 140	on stream flow, lists of
near Logan, Utah 26-27	Punch Bowl Creek, Calif., discharge meas-
Logan River above State dam near Logan,	urement of141
Utah 22-24	Pyramid and Winnemucca Lakes Basin,
Lost Creek at Devils Slide, Utah 38-39	Calif., gaging-station records
Lovelock, Nev., Humboldt River near 116	in126-129
,,	-

### INDEX .

v	Page	T Page
Valyermo, Calif., Rock Creek near	97-98	Tahoe, Calif., Lake Tahoe at 126-127
Vermilion, Utah, Rockyford Canal near-		Truckee River at
Sevier River near		Terms, definition of 2
COVICE LEEVER HEART	- 00-02	Trout Creek near Denio, Oreg
R		Truckee River at Iceland, Calif
Rock Creek at Sherwin Hill, near Bishop		at Tahoe, Calif127-128
Calif		Tule Lakes outlet, Idaho, discharge measure-
discharge measurements of		ment of 140
		ment 01 140
near Valyermo, Calif		т
Rock Creek, Nev., discharge measuremen		U
of		Utah Power & Light Co.'s tailrace, Utah,
Rockyford Canal near Vermilion, Utah	-	discharge measurement of 140
Run-off in inches, definition of	. 2	near Logan, Utah 24-25
8		
Salt Creek near Nephi, Utah	47_49	ν
Salton Sink Basin, Calif., gaging-station		•
records in		Vermilion, Utah, Rockyford Canal near 69-70
Schurz, Nev., Walker River at		Sevier River near
Second-feet per square mile, definition of		
Second-foot, definition of		<b>W</b> .
Sevier Bridge Reservoir near Juab, Utah		
Sevier River at Hatch, Utah		Wabuska, Nev., Walker River near 100-101
•		Walker River at Schurz, Nev 102-103
at Oasis, Utah		near Wabuska, Nev 100-101
at Sevier, Utah		Walker River Basin, CalifNev., gaging-
below Piute Dam, near Marysville, Utah		station records in 99-106
below San Pitch River, near Gunnison		Weber River at Devils Slide, Utah 33-34
Utah		at Gateway, Utah
East Fork of, near Kingston, Utah		near Oakley, Utah
near Circleville, Utah		near Plain City, Utah
near Juab, Utah		Weber River Basin, Utah, gaging-station
near Kingston, Utah		records in
near Vermilion, Utah		Wellington, Nev., West Walker River near_ 104-105
Sevier River Basin, Utah, gaging-station		West Cache Canal, Idaho, discharge meas-
records in		urement of140
Silver Creek near Silver Lake, Oreg		West Side Canal near Collinston, Utah 28-30
West Fork of, near Silver Lake, Oreg. 1		West Walker River at Hoye Bridge, near
Silver Lake, Oreg., Silver Creek near		Wellington, Nev 104-106
West Fork of Silver Creek near		near Coleville, Calif 103-104
Silver Lake Basin, Oreg., gaging-station		Weston, Idaho, Bear River near 16-17
records in		Whitewater, Calif., Falls Creek near 78-79
Silver Lake Irrigation District Canal near		Snow Creek near75-77
O-1 Silver Lake, Oreg		Southern Pacific Co.'s ditch near 77-78
Silvies River near Burns, Oreg.		Winnemucca and Pyramid Lakes Basin,
Snow Creek near Whitewater, Calif		Calif., gaging-station records in. 126-129
Soda Creek at Lau ranch, near Soda Springs		Work, authorization of1
Idaho		division of10
near Soda Springs, Idaho		scope of1-2
Soda Springs, Idaho, Soda Creek near		
Southern Pacific Co.'s ditch near Whitewater		Z
Calif		Tour flow maint of definition of
Stage-discharge relation, definition of	_ 2	Zero flow, point of, definition of

